Saskatchewan
Tourism and
Small Business

AN ECONOMIC SURVEY OF SASKATCHEWAN'S OUTFITTING INDUSTRY

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TABLE OF CONTENTS

	Page
PREFACE	iv
EXECUTIVE SUMMARY	v
INTRODUCTION	1
Objectives	1
Relevance	1
Methods	1
Plan of Study	3
THE NATURAL RESOURCE BASE	3
Extent and Distribution	3
Resource Use	4
PROFILE OF SASKATCHEWAN'S OUTFITTERS	6
Categories of Operation	6
Distribution and Characteristics	6
INDUSTRY REVENUES AND EXPENSES	10
Aggregate Financial Performance	10
Comparative Financial Performance	13
ECONOMIC IMPACTS	18
Direct Economic Impact	20
Indirect Economic Impact	20
Induced Economic Impact	20
INDUSTRY ATTITUDES	22
Overview	22
Regional Responses	23
ECONOMIC POLICY ISSUES	31
Policy Framework	31
Policy Alternatives	32
Economic Criteria	36
CONCLUDING NOTE	37
ACKNOWLEDGMENTS	37
REFERENCES	37
APPENDIX 1. List of Saskatchewan Outfitters	39
2. Sample Coverage	48
3. Resource Base and Use: Statistical Tables	50
4. Cost Accounting Model	55
5. Concepts from National Income Accounting and Input-Output Analysis	59

PREFACE

Statistics Canada's estimates of the aggregate receipts for Canada's outfitting industry suggest that after a brief period of real economic growth in 1979 and 1980 the industry entered a downturn in 1981 which persisted through 1982. Our profile of the industry indicated generally poor economic performance in 1981, suggesting the adverse conditions which prevailed across Canada appear to have affected Saskatchewan with equal, if not greater, force.

More significantly, our analysis of the long term prospects for the industry suggested major rather than marginal adjustments would be necessary to achieve a semblance of long-term financial and economic viability. These adjustments were considered to be greater than what could be accounted for by a more favourable economic climate than prevailed in 1981. Consequently, we formed the impression of an industry characterized by financial risk and uncertainty.

The attitudinal survey, which explored outfitters' perceptions of the nature and extent of resource management issues, emphasized the uncertain conditions in which the industry operates. Outfitters have deep felt concerns about their sustained ability to provide quality resource based tourism in light of varied and expanding pressures on the resource base.

We feel the problems identified are sufficiently widespread that there should be cause for concern. There is a need to clarify the role for the outfitting industry in Saskatchewan's economic development strategy and to initiate measures to alleviate industry problems. In our opinion, the diversity of operations indicates the need for both a segmentation of policy initiatives and an appreciation that no ready, simple solutions should be expected.

While change does not come easily in the public management of fisheries, we believe there are feasible alternatives to the status quo which would enhance both private and public sector performance. Hopefully, our analysis will stimulate discussion on what we feel are essential topics for public resource policy.

D. Topolniski
Regional Economic and Marketing Services

THE VIEWS EXPRESSED IN THIS REPORT ARE THOSE OF THE AUTHORS, AND DO NOT NECESSARILY REFLECT CURRENT OR FUTURE PROGRAMS AND POLICIES OF THE DEPARTMENT OF PARKS AND RENEWABLE RESOURCES, THE DEPARTMENT OF TOURISM AND SMALL BUSINESS, OR THE DEPARTMENT OF FISHERIES AND OCEANS.

EXECUTIVE SUMMARY

The principal objective of this study was to evaluate the dimensions and economic contribution of Saskatchewan's outfitting industry. The dimensions of the industry were measured by documenting the numbers, capacities and capital investments in outfitting operations. Aggregate industry performance was estimated from the income statements of a sample of operations for the 1981 operating year while a comparison of the sample provided further insights into revenue and cost structures. Economic impact was measured through an examination of the gross incomes of the industry and the distribution of this income to labour, to the purchase of goods and services, and to capital. The interrelationships among outfitters and other sectors of the Saskatchewan and Canadian economies was estimated through the use of an inter-regional input/output model. Finally, issues of concern to both industry and government were addressed in the attitudinal survey.

NUMBERS, CAPACITY AND UTILIZATION

In 1981, Saskatchewan's outfitting industry consisted of 180 establishments. The outfitters were not a homogeneous group; rather, there were three distinct categories of operations, differences resulting from variations in the resource base, accessibility, services provided and clientele served. The boundary of the Northern Administrative District was used to delineate the northern and southern regions of the province. While all operations in the south were road-accessible, outfitters in the north were categorized as either road-access or remote-access operations. The northern remote-access operations marketed the provision of high quality fishing opportunity in a remote wilderness setting. The northern road-access operations represented an intermediate category of operation, in part reliant on the direct provision of access to the resource base but increasingly diversifying their operations to provide retail services to other recreationists, general vacation and travel markets. The southern road-access operations have completed the transition and, as a result, provided services in a distinctly different setting, with both the quantity and quality of the resource base diminished and consequently, of lesser importance to their overall operations.

- The 180 establishments included 69 northern remote operations, 69 northern road operations and 42 southern road operations.
- The total bed capacity was 5 499 beds, including 1 466 beds in the northern remote-access category, 2 308 beds in the northern road-access category and 1 725 beds in the southern road-access category.
- There were 146 outpost camps operated by Saskatchewan outfitters, all located in the northern region. Northern remote-access operations had 84 outpost camps and northern road-access operations 62 outpost camps.
- The replacement value of capital assets, a measure of what it would cost to replace the capital assets at current market prices, was $54 328 000. The replacement value of northern remote-access establishments was $18 782 000, of northern road establishments $18 397 000 and of southern road establishments $17 149 000.
- One hundred and fifty-six of the outfitters operated on a seasonal basis and 24 operated year round. All northern remote operations were seasonal operations.
- Ninety five outfitters were licensed for fishing services only, 76 for both fishing and hunting and 9 for miscellaneous other services.
- Saskatchewan outfitters were estimated to have served 84 931 guests in 1981. The northern remote-access operations served 12 796 guests, the northern road-access operations 40 466 guests and the southern road operations 31 669 guests.
- Saskatchewan outfitters were estimated to have served 368 410 guest-days in 1981 including 47 308 guest-days for the northern remote, 96 248 guest-days for the northern road and 124 894 guest-days for the southern road operations.
- Approximately 70% of the total guest-days served by Saskatchewan outfitters in 1981 were attributed to fishing/hunting activity. Virtually all guest-days in the northern remote category and approximately 2/3 of the guest-days in the other categories were attributed to fishing/hunting.
- Saskatchewan outfitters used 40% of their bed capacity in 1981. The capacity utilization for northern remote-access operations was 30%, for the northern road-access operations 45% and for the southern road-access operations 38%.

FINANCIAL PERFORMANCE

Aggregate industry

Saskatchewan's outfitters were estimated to have realized a total gross income of $19 735 000, total expenses of $18 934 000, and a pretax income of $801 000 on 1981 operations. The total gross income was estimated to have been distributed among the purchase of goods and services from other firms ($13 211 000), as wages and salaries ($2 997 000) and as a share for capital ($3 527 000). Industry value added, estimated to be $6 527 000, was calculated as the sum of the latter two items.

Northern remote-access: The northern remote-access operations were estimated to have gross income on 1981 operations of $6 137 000, total expenses of $6 483 000 and a pretax loss on operations of $346 000.

- Ninety five percent of revenues were derived from package plans and accommodation services.

- Virtually all revenues and direct costs were attributed to fishing.
- The direct production costs and selling and administration costs were proportionately higher than for the other categories of operation. The combined effect was to leave a smaller margin as a share for capital, a margin which was less than the interest expenses paid and capital cost allowances taken. Hence, the estimated pretax loss for this segment of the industry.

Northern road-access: The northern road-access operations were estimated to have gross income on 1981 operations of $6 883 000, expenses of $5 864 000 and pretax income of $1 019 000.

- The revenue sources were the most diverse of all categories. Retail services provided 41% of revenues while package plans (26%), accommodation services (18%) and outfitting services (13%) were also important.
- Approximately 80% of the income and direct expenses was attributed to fishing.

Southern road-access: The southern road-access operations were estimated to have gross income of $6 715 000, expenditures of $6 578 000 and a pretax income of $128 000 on 1981 operations.

- The principal source of revenues for this category was retail services, generating 65% of total revenues. Package plan and outfitting revenues were insignificant.
- Almost 50% of the revenues and direct expenses was attributed to general vacation activity, while fishing and hunting activity provided 29% of revenues and direct costs.

Comparative financial performance

The financial performance of the establishments surveyed was generally poor, with 29 of 53 reporting a pretax loss on operations. The cash flow earnings of the sample, calculated by adding back interest expenses and depreciation allowances to net income, were equally poor. Twenty-five of 53 realized cash flow earnings of less than $9 000 while only 25% had cash flow earnings greater than $26 000.

The comparative financial analysis, which examined four factors influencing annual profitability, did not provide a simple formula for evaluating the financial success or failure of operations. Rather, there appeared to be varied interactions between the components of revenue and expense.

The long-run viability analysis assessed whether or not sampled operations were earning sufficient cash flows to cover long-term investment costs, that is, whether or not outfitters could replenish their capital assets and provide a return on capital. Two of 53 operations were considered viable projecting current revenues, cash flows and replacement costs at a 10% discount rate. The remaining operations were not providing sufficient cash flows to enable the replacement of capital assets.

The sensitivity analysis provided an indication of the relationships between revenues and costs, and the change necessary to equate revenues with long-run costs. These changes were considered to be so large for many of the operations that they are virtually impossible. These operations appear to be nonviable in the long run.

In light of the generally poor financial performance in 1981 and the equally unfavourable prospects suggested by the long-run viability analysis, the industry's financial position appears to be one of high risk and uncertainty.

Northern remote-access: There were 21 operations in the sample of northern remote-access operations. The analysis of the sample indicated:

- nine of 21 operations reported positive pretax income on 1981 operations, the remaining 12 a pretax loss;
- the long-term viability analysis indicated none were generating cash flows sufficient to cover their long-run capital costs;
- operations with 30 beds or less reported average gross income of $48 000, expenses of $51 000 and a pretax loss of $3 000 on 1981 operations;
- revenue shortfalls separated the least successful from the most successful in the sample of operations with 30 beds or less, but the differences were accentuated by proportionately higher production costs and consequently lower gross profit margins;
- the sample of operations with more than 30 beds reported average gross income of $205 000, expenses of $209 000 and a pretax loss of $4 000 on 1981 operations;
- the comparative analysis of operations with more than 30 beds indicated the largest cash flows were realized as a result of production efficiency. At the other extreme, low revenues, high selling and administration costs and high capital costs produced negative cash flows.

Northern road-access: There were 20 operations in the sample of northern road-access operations. The analysis of the sample indicated:

- thirteen of the 20 reported positive pretax income on 1981 operations, the remaining 7 reported pretax loss;
- the long-term viability analysis indicated 2 were generating cash flows sufficient to cover their long-term capital costs;
- operations with 30 beds or less reported average gross income of $56 000,

expenses of $50 000 and a pretax income of $6 000 on 1981 operations;
- operations with more than 30 beds reported average gross income of $139 000, expenses of $113 000 and a pretax income of $26 000 on 1981 operations;
- the comparative analysis indicated the operations were differentiated by the extent to which revenues from retail services supplemented revenues from accommodation and outfitting services.

Southern road-access: There were 12 operations in the sample of southern road-access operations. The analysis of the sample indicated:

- seven of 12 reported positive pretax income in 1981, the remaining 5 reported pretax loss;
- the long-term viability analysis indicated none were generating cash flows sufficient to cover their long-term capital costs;
- operations with 30 beds or less reported average gross income of $142 000, expenses of $137 000 and a pretax income of $6 000;
- the sample of operations with more than 30 bed capacity reported average gross income of $175 000, expenses of $113 000 and a pretax income of $7 000;
- the profitable and non-profitable southern road-access operations were differentiated by the extent to which retail service revenues supplemented revenues from accommodation and outfitting services.

ECONOMIC IMPACT

The aggregate income statement was used to measure the economic impact of the outfitting industry on the provincial and national economies. The economic activity initiated by the lodges, estimated using the national income accounts and the input-output analysis, indicated the extent of the industry's economic impacts. The total economic impact was estimated to have contributed $27 173 000 of gross domestic product in the Canadian economy, $15 280 000 of which accrued within Saskatchewan. Included in this estimate were wage and salary payments which provided the equivalent of 1 298 person-years of employment, of which 966 occurred within the province.

Direct economic impact

The direct economic impact included the wages and salaries, profits and rents realized by outfitters, incomes earned through non-lodge guiding activity, and the wages and salaries, profits and rents realized by the direct suppliers of lodges as a result of their sales to the lodge industry.

- The direct economic impact, as measured by the contribution to gross domestic product, was estimated to be $12 497 000, of which $10 149 000 was realized within Saskatchewan.
- The direct economic impact included the value added of outfitters ($6 524 000), the incomes earned through non-lodge guiding ($493 000) and the value added of the firms supplying outfitters with goods and services ($5 480 000).
- The direct employment impact included wages and salaries which provided the equivalent of 959 person-years of employment. The distribution of these employment opportunities included 722 person-years in outfitting, 41 person-years in non-lodge guiding, and 196 person-years in firms which are direct suppliers of lodges.
- Direct employment opportunities largely accrued to residents of Saskatchewan, with 860 of 959 person-years of employment. Residents of northern Saskatchewan were estimated to have obtained 495 person-years of employment from outfitters and non-lodge guiding activity. Northern Saskatchewan residents share of employment in the firms supplying outfitters could not be estimated because the results of the input-output model were aggregated at the provincial level.

Indirect economic impact

The indirect economic impact included the wages and salaries, profits and rents realized at an earlier stage of production, by those firms providing goods and services to the direct suppliers of lodges.

- The indirect economic impact, as measured by the contribution to gross domestic product, was estimated to be $5 636 000, of which $2 043 000 occured within Saskatchewan.
- The indirect economic impact included $2 374 000 of wages and salaries which provided the equivalent of 128 person-years of employment, of which 43 were realized within Saskatchewan.
- The indirect income multiplier of 1.20 indicated that for every additional dollar of gross domestic product created by Saskatchewan's outfitters, there was an additional $0.20 of gross domestic product created within Saskatchewan.
- The indirect employment multiplier of 1.05 indicated that for every additional 100 jobs of direct employment there were an additional 5 jobs created within Saskatchewan.

Induced economic impact

The induced economic impact considered the effect of the household incomes created through the production activity of outfitters. The creation of household income resulted in increases in the purchases of other goods and services by virtue of the household income multiplier.

- The induced economic impact, as measured by the contribution to gross domestic product, was estimated to be $9 039 000

of which $3 087 000 occured within Saskatchewan.
- The induced economic impact included $3 958 000 of wages and salaries which provided the equivalent of 211 person-years of employment, of which 63 were realized within Saskatchewan.
- The total income multiplier of 1.51 indicated that for every additional dollar of gross domestic product created by Saskatchewan's outfitters, there was an additional $0.51 of gross domestic product created within Saskatchewan.
- The total employment multiplier of 1.12 indicated that for every additional 100 jobs of direct employment there were an additional 12 jobs created within Saskatchewan.

ATTITUDINAL SURVEY

Outfitters surveyed were provided the opportunity to address several issues of concern to both industry and government. The attitudinal survey suggested the perception of conflicts in resource use are so complex, widespread and acute as to represent a major issue of concern to the industry. In this regard, the attitudinal survey combined with the financial survey to provide a profile of an industry facing considerable risk and uncertainty, an industry characterized by great instability.

The conflict in use over fish resources was of paramount concern, since fishing is the single activity most important to outfitters. The conflict exists at several levels, the most obvious being the conflict between sport and commercial fishing sectors, but conflicts of increasing significance appear to exist between outfitters' clientele and other recreational users, and also among the outfitters themselves.

Operators also expressed concern over a number of general policy issues, namely the problems they felt result from indiscriminate native hunting activity, improved access to wilderness areas and the existing system of land lease arrangements.

There were four major issues which operators in all regions wish to see addressed:

- land tenure must be resolved as it is perceived as a major limiting factor to the expansion and stability of the industry;
- better enforcement of existing regulations is seen as a basic move to eliminate much of the conflict between user groups;
- the issue of native hunting rights must be addressed if depredation of the Province's big game stocks is to be prevented;
- the government must improve its attitude towards the industry and provide adequate policy support to the industry.

ECONOMIC POLICY ISSUES

A desirable economic goal for resource policy is that the labour, capital and natural resources engaged in resource use make their greatest contribution to the economic and social welfare of the province, subject to the requirement the natural resources are conserved. Our profile of the industry suggested this economic goal is not being achieved. This raised the issue as to which policy initiatives are best suited to obtain better economic performance.

Our analysis of policy alternatives reflected our weighing of the survey data in light of certain economic principles of resource management. These principles indicate a critical link between resource management initiatives which affect recreation quality, economic demand and value. The preservation of recreation quality and the maintenance of an open-access system of resource management are increasingly in conflict as the demand for recreation grows. Economic alternatives to correct for the effects of open-access include the implementation of a variant of property rights in the resource or the use of taxes or subsidies to control access to the resource.

We distinguished between the roles of the private and public sectors in contributing to the economic performance of the industry. Outfitters have the opportunity, within the constraints of the regulatory framework, to organize their marketing, production and investment activity for economic gain. As appropriate in a market economy, outfitters should expect to bear the consequence of their entrepreneurial decisions. In planning its operations the industry must be fully aware of the regulatory system which will prevail and the implications of this system on their business prospects. The industry must also consider the potential impact of economic development, as such development progresses northward, on the role and market opportunities for the industry.

Our analysis of the public sector focused on the working and expected performance of the existing resource management system, which is a variant of an open-access management regime. For some segments of the industry, especially where there is continued emphasis on package plan sales, we concluded that decisions on how best to regulate and control access to the fish resources are critical. The present system, in spite of indirect measures to control effort, is not considered well suited to the preservation of recreation quality. A more direct means of controlling fishing effort is to provide for an explicit allocation of resources for industry use. This could be accomplished by the provision of a quota for outfitters for each lake and species fished by their guests. An alternative, or really a variant to a quota system would be the development of a system of leased fishing rights, the lease specifying the terms and conditions of operation. A third alternative would be to use the price system to ration limited fishing rights to those who value them most highly. A properly designed pricing system would differentiate markets and prices for different quality fishing areas.

Clearly, each of these alternatives, while they are felt to be an effective economic measure, would represent such a departure from current approaches they would have to be evaluated carefully before being integrated with the existing resource management program. We believe the province should evaluate the relative merits of these alternatives and, pending that review, consider the feasibility of pilot projects which would provide an explicit allocation of resources for outfitters.

The effects of decisions on access control can be so far-reaching that, in the absence of some measure of control, other policy initiatives may prove necessary but insufficient in contributing to economic performance. We have addressed the relationship between access control and such policy measures as resource enhancement, market analysis, land tenure and better enforcement of regulations. We suggest the need for evaluation of these measures in light of the management mode which will prevail.

The economic criteria which should be used in planning for the industry were reviewed. We have described a planning framework which incorporates the economic impact analysis, as conducted in this study, with primary valuation analysis which would enable estimates of the value of the resource when allocated to outfitters for resource based tourism.

INTRODUCTION

OBJECTIVES

This study evaluates the economic contribution of Saskatchewan's outfitting industry to the provincial and Canadian economies. Basic information is presented on the economic dimensions and performance of the industry in a framework which can be used by both industry and government in their evaluation of public policies for natural resource management, economic development and tourism.

The economic appraisal is designed to meet the following objectives:

1. to describe the current size, capacity, distribution, category of service, clientele and resource utilization of the outfitting industry in Saskatchewan;
2. to evaluate the financial performance of the outfitting industry, including a separate evaluation of the fly-in and drive-in components of the industry;
3. to determine the economic contribution of the outfitting industry to the Saskatchewan and Canadian economies, with particular emphasis on the employment opportunities for residents of northern Saskatchewan.

   A related purpose of the study is to assess the perceptions of outfitters with regard to certain issues of concern to industry and government. Therefore, the fourth objective of the study is:
4. to survey outfitters to obtain their attitudes about resource availability, resource management, resource conflict and allocation priorities.

RELEVANCE

The natural resources used by the outfitting industry, in particular the fish, wildlife and water, are public resources managed by the province on behalf of the owners of these resources, all Saskatchewan residents. As a result, the outfitting industry is affected by government decisions which influence the quantity and quality of natural resources available for their use. Because the industry is dependent on government for management and allocation of the natural resources, as well as various financial and legal conditions for operation, it is essential that the industry be aware of its importance to the provincial economy, and that government be aware of the effects of its resource management decisions on industry operations.

Multiple use of resources is a guiding principle to the province's natural resource allocation policies. For this principle to be applied there has to be an understanding of the economic benefits derived from each resource use and the implications of allocating more or less of the resource to each use. This study develops a framework which will facilitate examination of the industry in a consistent and systematic manner. Oftentimes, the evaluation of resource sectors has been made by a simple calculation of the total revenues or expenditures of resource use divided by the amount of resources used. This method, referred to as the expenditures approach, is not an acceptable economic measure since it does not correspond to valuation procedures for other industrial sectors throughout the economy.

This study distinguishes between natural resource values and the economic contribution of the industry which provides goods and services which facilitate access to the resources, addressing the latter but not the former. Accepted procedures for the examination of an industrial sector include, among other methods, the use of the national income accounts and input-output analysis. The national income accounts can be used to measure the value added of the industry, thereby providing an unduplicated measure of the wages and salaries, profits and rents generated by the outfitting industry. Input-output analysis is a method of demonstrating the economic links between the outfitting industry and other sectors of the economy and their cumulative contribution to national income.

This study documents the importance of resource based tourism as a source of employment and income. Statistics Canada's inter-regional input-output model enabled separate estimates of the industry's impact on the Saskatchewan economy and on the rest of Canada, but this model is not suited to estimation of impacts within regions in the province. Insofar as there are economic and social problems which exist because there are few development alternatives, particularly in the north, the estimation of these impacts is of concern in economic development planning. Accordingly, the survey was adapted to measure the regional incidence of expenditures and employment opportunities.

METHODS

Representatives of the Department of Parks and Renewable Resources (2 members), the Department of Tourism and Small Business (1 member), Northern Saskatchewan Outfitters Association (2 members), and Canada Fisheries and Oceans (1 member) were appointed as members of a steering committee for the study. (Provincial representation prior to government reorganization in 1982 consisted of 1 member from the Department of Northern Saskatchewan and 2 members from the Department of Tourism and Renewable Resources, 1 member from each of the Fisheries and Tourism sections.) This committee was responsible for the overall design and conduct of the study, including development of the study methods.

For the purposes of this survey, an establishment was defined to be the combination of base camp and/or outpost camp operations which together constitute one financial reporting unit. A list of establishments was prepared from available information on the locations,

services and capacities of outfitting establishments. Several vacation resort facilities in the province's provincial and national parks were excluded, as were several smaller facilities throughout the province which, although licensed as commercial operations, were thought to operate essentially as private or quasi-commercial camps. One hundred and eighty establishments were included in this study (Appendix 1).

The study was designed as a sample survey of all outfitting establishments, since the costs of doing a census of all facilities were considered prohibitive. The sampling procedure involved the stratification of facilities by three factors thought to influence the operating characteristics of an establishment, these being the type of access, size as measured by bed capacity and area of operation. Establishments were categorized as either remote- or road-access, as being in one of three bed capacity intervals (≤30, 31-60, >60), and as being in one of five regions in the province (south of the Northern Administration District (NAD) line, Creighton area, La Ronge area, Buffalo Narrows area, and the northern area).

Within each combination of access-capacity-region, establishments were listed in order of capacity from smallest to largest and from this list a systematic sample of 60 facilities was drawn, this being 33% of all establishments. The same sampling rate was used for each combination of access-capacity-region. In the event of a refusal, a replacement was selected from the same category. In the event that no facility remained for selection from an area, a facility of the same access and capacity from a neighboring region was drawn as the substitute facility. The field survey was continued until the desired coverage was obtained.

A consultant was retained as an interviewer for the field program. The consultant made arrangements to meet with outfitters at mutually convenient times and locations. The personal interviews provided an opportunity to explain the purpose of the study, to conduct the attitudinal survey, and to obtain operating and financial data for the 1981 operating year. In some circumstances, all the financial data were not directly available from the outfitter and arrangements were made to obtain the data, usually by letter of referral to the establishment's accountant.

The attitudinal questions were always covered in the first part of the interview as they provided a good introductory dialogue which led naturally into the more structured and detailed sections of the study. The first question elicited information on the resource quantity and quality which the outfitter is currently experiencing, the second sought to examine the less defined area of conflicting resource use. The questions were worded broadly within the two general subject areas and relied a great deal on the ability of the outfitter to interpret the question meaningfully within his own reference area. In many cases the outfitters chose to interpret the questions extremely broadly and to discuss a wide range of issues which impinged on the areas of resource and conflict management. The level of involved responses was extremely high. The presence of this portion of the questionnaire may have led to the overall high response rate to the survey.

The consultant was responsible for ensuring that all data obtained were kept confidential and anonymous. The consultant developed establishment codes for each questionnaire, but no information on the address or name of the owner was included on the form, thereby ensuring names of establishments could not be linked to any information by anyone other than the consultant. Coded questionnaires were provided to Canada Fisheries and Oceans which was responsible for the processing and evaluation of the data.

Several questionnaires were excluded after the preliminary data analysis, because of either data anomalies which could not be resolved or operating conditions which were considered unique and not representative of industry operations. In light of the limited coverage in certain categories, it was necessary to group the information at a higher level of detail than had initially been planned. Seven categories were used in the final data analysis, with the categories defined as being either road or remote-access in either of two regions, the NAD line used to divide the province into northern and southern regions. The southern road and northern remote-access operations were grouped into ≤30 or >30 bed capacity intervals, while the northern road-access operations were grouped in the original three bed capacity intervals. The effective survey coverage of 30% is based on a sample of 53 of 180 operations (Appendix 2).

The data analysis was done using a package called the Statistical Analysis System (SAS). Procedures were developed to analyze the sample data and extrapolate these data to the total outfitting industry. A cost accounting model, reflecting the approaches to reporting followed by the lodge industry, was developed for the study. The reported information on revenues and expenses was used to estimate an aggregate income statement for 1981 operations. The income statement served as the basic data for the input-output analysis which was conducted through the use of Statistics Canada's inter-provincial input-output model.

A comparative analysis of the sample data enabled consideration of the factors which resulted in some operations performing more successfully than others. Financial performance was compared with respect to (a) gross income, as indicative of their marketing function; (b) gross profits and gross profit margins, as indicative of the production efficiency; (c) selling and administrative costs in relation to gross income as indicative of the administrative efficiency, and (d) their depreciation and interest expenses as indicative of the annual capital cost structure. Additional indicators which help explain variations in financial performance, such as length of operating period,

capacity and utilization were included in this comparison.

Secondly, long-term viability analysis was conducted to assess whether or not the earnings of outfitters were sufficient to replenish their capital assets. A quantitative approach, referred to as discounted cash flow analysis, was used to compare the projected stream of cash flow earnings with initial investment costs. If the discounted stream of cash flows was greater than the initial investment costs, then the operation was considered viable. Otherwise, the operation was not viable given projections on revenues and cash flows, investment costs and discount rates.

PLAN OF THE STUDY

This section has provided an outline of the purpose and relevance of the study and the methods employed. The next section describes the resource base and the resource users, while the third provides a profile of the outfitting industry and reports on 1981 operating statistics.

Estimates of industry revenues and expenses are presented in the fourth section, including separate estimates of the revenues and expenses for each of the northern remote, northern road and southern road-access categories. This section also includes selected financial and operating statistics for the operations sampled. The fifth section uses the estimate of aggregate revenues and expenses, and their regional incidence, to provide measures of the economic impacts of the industry. Responses to the attitudinal questions are included in the sixth section. First, the findings are summarized for all regions, then the results are presented for each of the five regions originally defined for the study. The final section identifies economic policy issues which should be addressed.

THE NATURAL RESOURCE BASE

A description of the extent, distribution and use of Saskatchewan's lakes, fish and wildlife resources provides a necessary perspective to the analysis of the outfitting industry, since there is a direct relationship between the quantity and quality of the resource base and the successful operation of the outfitting industry. (This profile draws from several publications. Rather than replicate these reports and the data they contain, only a brief outline is presented in the text and several pertinent tables included in Appendix 3.)

EXTENT AND DISTRIBUTION

Two geological areas, the Precambrian Shield and the sedimentary zone, influence the distribution and characteristics of Saskatchewan's lakes and, therefore, the distribution of fish resources. The Shield region, an area of rugged terrain of rock, muskeg, lakes and sparse coniferous forests, covers much of northern Saskatchewan (Fig. 1). The southern edge of the Shield extends from the northwest edge of the province down through the northern end of Churchill Lake to Lac la Ronge, then reaches through to Amisk Lake at the Manitoba border. The sedimentary zone occurs south of the Shield and spans the balance of the province.

Five ecological zones influence the distribution of Saskatchewan's wildlife resources. In addition to the Shield region, there are four ecological zones in the sedimentary zone, namely the commercial forest zone, the parklands, farmlands and grasslands. The commercial forest zone, its northern edge being the Shield boundary, extends diagonally across Saskatchewan in the form of a belt averaging almost 150 miles in width. The forest region in turn gives way to the agricultural areas of the province, from the rolling hills of the parkland through to the level, fertile plains of the farmland region. The grassland region extends through the southwestern corner of the province.

Saskatchewan's lakes

There are more than 94 000 lakes in Saskatchewan (Table A3.1) with a total surface area in excess of 66 000 km.^{2}, representing about 10% of the province's surface area. In addition, an estimated 1 000 km.^{2} of streams flow within the province. There is a marked difference in the distribution of lakes, with 83 241 lakes found in the Shield region, 90% of the number and 70% of the surface area of all lakes.

While there is a gradient from the "very large" to the "very small" lakes, the vast majority of Shield lakes (99%) are considered "very small", averaging 0.3 km.^{2} in area. The lakes of the Shield region are typically deep, clear and cold with shores of granite rock.

Two hundred and fifty seven lakes border the Precambrian Shield and the sedimentary zone, but the majority of these are considered "very small". The sedimentary zone contains 10 558 lakes with a total surface area of 13 707 km.^{2}. These lakes are typically shallower, warmer and more productive than Shield lakes, but they often have poorly defined waterways and tend to be highly mineralized. Some lakes in the zone have such a high mineral concentration they do not support fish.

Saskatchewan's fish resources

Sixty-eight species of fish are known to occur in Saskatchewan and, of these, 21 are economically important and are harvested by one or more groups of fishermen. The four most important species are walleye, lake trout, northern pike and whitefish. With the exception of whitefish which is of commercial importance only, the other species are valued both for their commercial and game fish potential. Arctic grayling and yellow perch are native gamefish of importance. In addition, there are numerous game trouts which have been introduced to waters in the province including the brown

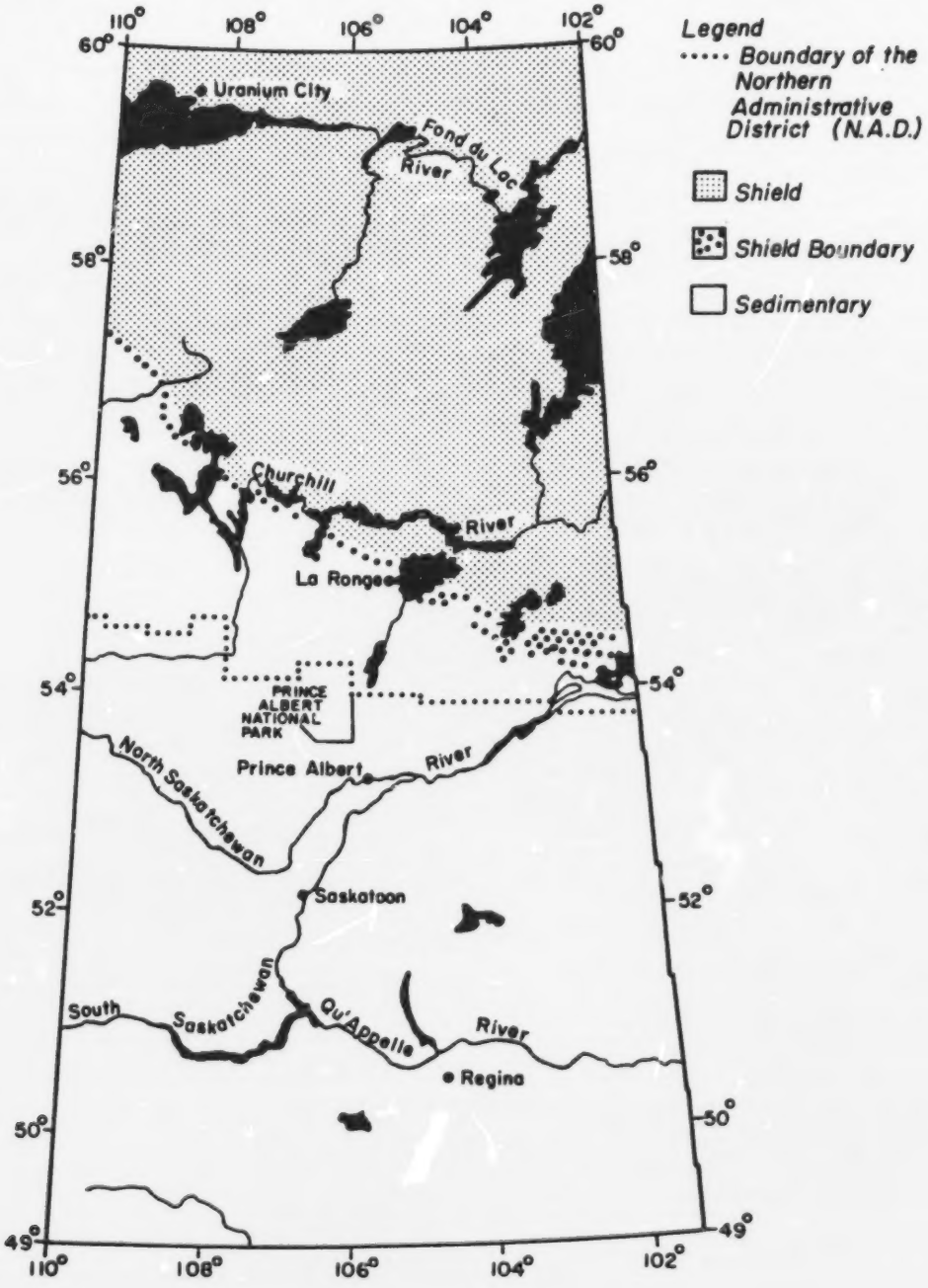

Fig. 1. Geological regions in the Province of Saskatchewan.

trout, brook trout, splake, rainbow trout and kokanee.

The distribution and abundance of the major species, as documented by Saskatchewan Tourism and Renewable Resources and Department of Northern Saskatchewan (1981), indicate that northern pike, distributed throughout Saskatchewan, is the most abundant species with a sustainable supply of 7.7 million kg. Walleye also are found throughout the province, with the exception of the very saline lakes of the south. The sustainable supply of walleye is 2.4 million kg. A sustainable supply of 1.2 million kg. of lake trout is found primarily in the northern lakes of the Precambrian Shield, although natural populations exist in several lakes of the central forest zone. Whitefish are widely distributed in the north, but few lakes in the south are suitable for whitefish because of their salinity, shallow and warm waters, and the eutrophic conditions of the lakes. Accordingly, the sustainable supply of 4.3 million kg. is concentrated in the northern regions.

Arctic grayling are the least abundant of Saskatchewan game fishes, only occurring naturally north of the 56th parallel in streams tributary to large lakes on the Precambrian Shield. A sustainable supply of 0.8 million kg. of yellow perch occurs throughout Saskatchewan except for the far northeast corner of the province. Game trout are not native to the province and, as a result, are found only in stocked waters. Presently, the game trout stocking program involves the regular stocking of 84 lakes and the occasional stocking of 31 streams.

Saskatchewan's game bird resources

There are 25 migratory game species and 8 upland game species known to occur in Saskatchewan. The migratory birds of importance include 18 species of ducks and 4 species of geese. Upland game birds of importance include the sharp tailed grouse, partridge, ruffed grouse, spruce grouse and pheasant (Saskatchewan Tourism and Renewable Resources 1980b).

Duck populations are found primarily in the southern portion of the province, in the commercial forest, parkland and farmland regions. This highly productive area produces 60% of all ducks harvested in the North American continent in only 10% of the continental waterfowl breeding area. Mallard are the single most important species. The agricultural area of the province provides resting and feeding area for the arctic goose in its travels south from the breeding grounds of the arctic and sub-arctic regions of Canada. As well, several populations of large Canada goose breed in the boreal forest region of the province and there are localized populations on the prairies.

The sharp tailed grouse is the most important upland game bird, second only to the mallard duck in importance as a game bird. This species is found primarily in the grassland and parkland zones, but also occurs through all of agricultural Saskatchewan and localized regions of the forest zone. Of the other upland game birds, partridge are known to occur throughout agricultural Saskatchewan, but their density is greater in the grassland and farmland zones than in the more heavily treed parklands. The ruffed grouse and spruce grouse are both associated with relatively heavily forested habitat. Ruffed grouse occur in highest densities throughout the aspen dominated hardwood and mixed-wood forest, but also are found in the parkland area and much less so throughout the balance of the province. Spruce grouse is found in highest densities throughout the coniferous forest, but its range extends north to the Saskatchewan-N.W.T. border. Finally, there are pheasant populations, viable with little artificial winter assistance, found south of the South Saskatchewan and in the Qu'Appelle River valleys.

Saskatchewan's big game resources

There are seven species of big game which are of importance, these being the white tailed deer, moose, elk, mule deer, pronghorn antelope, woodland caribou and black bear (Saskatchewan Tourism and Renewable Resources 1980a).

By far, the single most important species is the white tailed deer which is distributed throughout the province and has the widest range of habitat. White tailed deer are found through the four broad ecological zones, namely the grasslands, farmlands, parklands and forest up to 55° N. latitude. Moose, the second most important species, are restricted in their distribution, occurring in the commercial forest region north to the 60th parallel. Their most productive habitat is in the mixed wood section of the commercial forest from the 52°-56° latitude, where approximately two-thirds of the moose population is found.

The remaining big game species are of lesser importance. Mule deer are found primarily in the sandhill areas of rough topography in the western half of the province and secondly, throughout parts of the commercial forest. The pronghorn antelope is found in the grassland and parts of the farmland zones in southwestern Saskatchewan. Although a prized game species, the pronghorn antelope stocks are very small. Elk are found in the commercial forest zone to the south through to the Northwest Territories border. While precise population estimates are not available, there are many black bears distributed throughout the commercial forest zone and the Shield region. The highest density of black bear populations is in the hardwood and mixedwood forest regions.

RESOURCE USE

Fish utilization

The fish resources are used for sport, commercial and domestic purposes. Sport fishing involves the most individuals, but the commercial and domestic fisheries are of traditional importance to specific communities and regions.

Recreational fishing: In the past 30 years, there has been steady, if not accelerated,

growth in the number of anglers, reflecting the increase in the demand for outdoor recreation (Table A3.2). The growth in the number of anglers can largely be attributed to increases in resident angling activity, since non-resident activity has grown at a much slower rate (Saskatchewan Tourism and Renewable Resources and Department of Northern Saskatchewan 1981).

The 1980 national angling survey (Saskatchewan Parks and Renewable Resources, in prep.) provided estimates of the dimensions of Saskatchewan's recreational fishery. The survey estimated there were 216 373 licensed anglers, including 166 843 residents and 49 530 non-residents. Of the licensed anglers, 181 342 actually fished. The total angling effort amounted to about 2.1 million angler-days, of which 1.8 million were by resident anglers and 0.3 million by non-resident anglers (Table A3.3). The survey indicated each resident angler fished about 13.3 days and each non-resident angler about 6.2 days. Fishing effort is highly seasonal, with 86% of the fishing activity occurring in the five month period May-September. Approximately 95% of the non-resident fishing occurs in this period.

The geographical distribution of angling effort indicated 505 759 of the 2.1 million angler-days occurred in the portion of the province north of the 54th parallel. Non-resident anglers fished 175 498 of the northern total angler-days, representing 35% of fishing activity in the north.

The 1980 sport fish harvest was estimated to be about 5 million kg. of all game fish (Table A3.4). Northern pike harvests of 2.7 million kg. and walleye harvests of 1.5 million kg. comprised 85% of the total harvest. Resident anglers were estimated to have harvested 3.7 million kg. of fish or 74% of the harvest. The geographical distribution of harvests indicated 2.4 million kg. were harvested from lakes in northern Saskatchewan.

Total expenditures for accommodation, food, travel and other expenses were estimated to be $41.9 million (Table A3.5). More than $61.5 million was invested in durable major equipment used in whole or in part for sport fishing. About $5.4 million was spent by anglers on package fishing trips where the price included the cost of lodging, food, tackle, bait, etc. Non-resident anglers spent about $4.6 million, or 85% of the total. Apart from the package plans, there were an estimated $322 000 spent for guide services, of which more than $242 000 was spent by non-resident anglers.

Commercial fishing: In 1981-82, there were 3 779 585 kg. of fish harvested with a landed value of at least $3 348 396 (Table A.6). Whitefish was the most important species in terms of volume (34%) but walleye contributed the most to landed value (53%). There has been a general downward trend in production, a decline which has been attributed to changes in the composition of the harvest (Saskatchewan Tourism and Renewable Resources and Department of Northern Saskatchewan 1981). In 1961-62, 52% of the catch was whitefish and 37% game fish; in 1978-79, 38% of the catch was whitefish and 43% game fish. The decline in the whitefish fishery is attributed to limited markets, and the high costs of harvesting in relation to market prices, and to the increased demands for and value of gamefish, in particular walleye.

There were 1 216 licenced commercial fishermen in 1981-82 and, taking account of the 1 100 helpers, a total of 2 316 individuals engaged in fishing operations. The number of fishermen in northern Saskatchewan was 741, lower than in the recent past of the fishery, when it appeared that participation had stabilized between 800-900 fishermen.

The average gross revenue per fisherman in 1981-82 was $2 754, reflecting the limited participation of many fishermen. Most fishermen participate in the summer fishery but a few fish in both summer and winter. Within either season, many fishermen participate for only short periods of time. As a generalization, the seasonal and limited participation in the fishery translates into low gross returns and, ultimately, into low and in some cases negative returns to labour and capital.

Commercial fishermen in Saskatchewan participate in the Freshwater Fish Marketing Corporation, a federal Crown corporation which is the sole buyer of fish harvested for export markets. The Corporation operates 23 receiving/packing plants and 1 processing plant at strategic points throughout the north. The market value of plant and equipment is estimated to be more than $4 million (Saskatchewan Tourism and Renewable Resources and Department of Northern Saskatchewan 1981). It is also estimated that 114 persons are seasonally employed in fish packing and processing operations.

Domestic fishing

The domestic or "food" fishery is of traditional importance to native communities throughout the north, but the extent of the fishery and the values which are realized are not really understood. The importance of the fishery to the native culture is sufficient that, notwithstanding the lack of information on use and value, domestic fishing is accorded a high priority in use.

Game bird hunting

Each year over 65 000 hunters buy bird hunting licences, enjoy over 285 000 days of hunting recreation and harvest more than one million game birds. The dominant game bird hunting activity is duck hunting, with 85% of the effort expended by residents. Almost 77% of the harvest is mallard ducks with each of the remaining 13 species of ducks representing no more than 6% of the total harvest. The long-term trend in success rates declined from 7.5 ducks/hunter-day in the mid-1950s to 4.8 in the mid-1970s. In the mid-1970s, there were an estimated 33 000 geese hunters who participated for 63 000 days. Harvests are in the order of 146 000 geese per annum, with almost 2/3 of the harvest being arctic geese.

Sharp tailed grouse hunting represents almost 40% of the total upland game hunting activity. In the period 1976-79, there were some 28 000 hunters licensed for upland game hunting and they harvested approximately 95 000 grouse.

Big game hunting

The big game hunting resources are important for both recreational and domestic use. Recreation big game hunting involves some 80 000 hunters and provides an estimated 210 000 days of recreation activity. Domestic hunting is acknowledged to be of importance to native populations throughout the province.

There are an estimated 150 000 hunter-days of white tailed deer hunting each year, representing 3/4 of all big game hunting activity. Moose hunting accounts for a much smaller share with 39 000 hunter-days each year, but nevertheless is by far the second most important big game hunting activity.

PROFILE OF SASKATCHEWAN'S OUTFITTERS

This section documents the numbers, geographical distribution, capacity and operating patterns of outfitting establishments. Survey data are used to estimate the industry's capital investments and to profile the clientele served by outfitters.

CATEGORIES OF OPERATION

Three categories of outfitting establishments were defined, the northern remote-access, northern road-access, and southern road-access operations. The Northern Administrative District line was used to define north and south (Fig. 1, p.). Within each category there are common attributes and issues.

The northern remote-access operations are accessible only by air and/or water. Typically, they derive most of their revenues from the provision of access to angling activity, mainly to non-resident anglers, over a very short operating period concentrated in the mid-summer months. Services are oftentimes provided in the form of package plans which may include one or more of transportation, food, lodging and guiding services. Of all the outfitters, the northern remote-access operators are the most dependent on the availability of a sufficient natural resource base, since it is primarily in the far north that outfitters are able to market high quality fishing and hunting in a wilderness setting. Resource use conflicts arise from commercial resource exploitation.

In some areas of the north, particularly where the transportation network is newly developed and of uncertain quality, road-access outfitters face similar circumstances to remote-access operations. However, where the transportation network is better developed operators face a very different operating situation, since development has facilitated access to areas and resources which outfitters at one time may have used almost exclusively. The growth in the demand for outdoor recreation, the willingness of recreationists to travel further in pursuit of quality recreation opportunity, and the development of the means to do so, have increased resource use activity in the north. As a result, there has been a decline in both the quantity and quality of recreation experience which can be marketed by outfitters. Furthermore, the alternative of private travel and the availability of public camping sites influence the price structure of operations.

The perception of conflict in use, both between recreational users and between the recreational and commercial fishing sectors, is most evident in this part of the province. As development has proceeded, northern road-access outfitters have been forced to adapt their operations to these circumstances. Many are becoming less dependent on the provision of access to resource exploitation, placing greater emphasis on the provision of a variety of retail services to anglers, hunters, general vacation and commercial travellers.

This transition is even more evident in the southern road-access category, where services are provided in a distinctly different setting. The recreation opportunity in this region is characterized by intensive use and declining quality of resource based activity. Two-thirds of the province's population lives in this region, and many outfitters are within day use distance of Saskatchewan's major urban centres. Many southern road-access outfitters operate in regions served by a well maintained grid of provincial and municipal roads, where the primary recreational areas have been long established and oftentimes well developed for cottage and camping activity. There is a definite emphasis on the provision of services to the general vacation market, including grocery store, fuel sales, restaurant and beverage room sales. The major conflict arises between differing recreational uses, a problem which is accentuated by the difficulties of maintaining a heavily exploited resource base.

DISTRIBUTION AND CHARACTERISTICS

Numbers and capacity

Of the 180 establishments included in this survey, 138 were located in the north and 42 in the south. All facilities in the south were road-accessible while the northern facilities were equally divided into 69 road-access and 69 remote-access establishments.

The bed capacity of outfitting establishments was concentrated in the north where there were 3 774 beds, approximately 70% of the total bed capacity of 5 499 beds (Table 1). The average bed capacity of northern remote operations was 21.2, less than the average for all establishments, reflecting the high proportion of smaller facilities.

Table 1. Number of beds and average bed capacity of outfitting establishments.

Category	Number Beds	Number Camps	Average Capacity
Northern Remote	1 466	69	21.2
Northern Road	2 308	69	33.4
Southern Road	1 725	42	41.1
All	5 499	180	30.6

Outfitters have the opportunity to expand their operations through the development of outpost camps, subject to regulatory approval. In 1981, there were 146 outpost camps, all of them situated in the north. The camps were operated by 57 outfitters, including 25 road-access and 32 remote-access operations. Approximately 2/3 of the camps belonged to establishments with base camp operations of 30 beds or less, including 5 road-access and 4 remote-access operations which operate without base camps.

The total bed capacity of the outpost camps is not documented, but the outposts are generally small camps consisting of one or two cabins. The survey indicated 292 beds of outpost capacity for the 37 outpost camps in the sample, an average of 8 beds/outpost camp.

Value of capital assets

The book value of capital assets of Saskatchewan outfitting establishments, as estimated from the survey data on the actual price paid for assets less their accumulated depreciation, was $18 104 000 (Table 2). The total value was distributed among the three categories of operation almost uniformly, with $6 859 000 in the northern remote-access, $5 574 000 in the northern road-access category and $5 671 000 in the southern road-access category. The major categories of capital assets were buildings and components and refrigeration and electrical/generating equipment with a combined value of $12 409 000, representing 70% of investments. The investment in boats and outboard motors/vehicles was estimated to be $3 182 000 or 18% of total book value.

A second measure of value of capital assets, the replacement value, is an estimate of what an asset would cost to replace at current market prices. The estimated replacement value of assets was $54 328 000, roughly three times their book value (Table 3).

Services

Fishing was the single most important resource based activity for outfitters, with 95 providing access solely to fishing and an additional 76 access to both fishing and hunting (Table 4). Of those licenced for both fishing and hunting, fishing was the major activity while hunting was a minor, albeit important, supplement to the overall operation. A small

Table 2. Book value of capital assets of outfitting establishments (values in thousands of dollars).

Asset Group/Category	Northern Remote	Northern Road	Southern Road	All
Buildings and Components	$2 187	$3 146	$3 461	$ 8 794
Refrigeration Equipment	701	1 045	1 162	2 908
Boats	786	367	286	1 439
Outboard Motors/Vehicles	657	585	541	1 783
Roads and Runways	1 461	56	143	1 660
Electrical/Generating	602	247	4	853
Miscellaneous Assets	465	128	74	667
All Assets	$6 859	$5 574	$5 671	$18 104

Table 3. Replacement value of capital assets of outfitting establishments (values in thousands of dollars).

Asset Group/Category	Northern Remote	Northern Road	Southern Road	All
Buildings and Components	$ 8 449	$ 9 915	$10 069	$28 433
Refrigeration Equipment	1 600	2 507	3 325	7 432
Boats	2 138	2 519	605	5 262
Outboard Motors/Vehicles	1 567	2 062	1 526	5 155
Roads and Runways	3 278	208	1 380	4 866
Electrical/Generating	1 049	544	14	1 607
Miscellaneous Assets	701	642	230	1 573
All Assets	$18 782	$18 397	$17 149	$54 328

percentage of the operations were licensed to provide services other than fishing or hunting. The majority of these, located in the south, were oriented primarily to general vacation activity.

Normal operating period

The outfitting establishments operated largely on a seasonal basis, 156 of the 180 being seasonal operations (Table 5). All northern remote-access outfitters operated on a seasonal basis, while 24 of 111 road-access outfitters operated year round. The survey data indicated the normal operating period for seasonal establishments was 113 days. Facilities in the south operated an average of 150 days while facilities in the north operated an average of 107 days.

Guests and guest-days

It is estimated that Saskatchewan outfitters served 84 931 guests in 1981 (Table 6). Northern road-access operations served 48% of the guests, the southern road-access operations 37%, and the northern remote-access operations 15% of all guests. The source of the clientele for each category was very different. The northern remote-access operations relied primarily on the United States market, with 66% of the clients being from this region. By contrast, the southern road-access operations relied on the Canadian market, with 63% of the clients being Saskatchewan residents and 20% of the

Table 4. Licensed services of outfitting establishments.

Category/Service	Fishing	Fishing/ Hunting	Other
Northern Remote	47	22	0
Northern Road	21	47	1
Southern Road	27	7	8
All	95	76	9

Table 5. Period of operation of outfitting establishments.

Category/Period	Seasonal	Year Round	All
Northern Remote	69	0	69
Northern Road	54	15	69
Southern Road	33	9	42
All	156	24	180

Table 6. Number of guests and their place of residence.

Region/Category	Southern Road	Northern Road	Northern Remote	All
Saskatchewan	19 930	23 984	3 189	47 103
Rest of Canada	6 236	5 017	1 156	12 409
United States	5 083	10 965	8 446	24 494
Other Regions	420	500	5	925
All Regions	31 669	40 466	12 796	84 931

Table 7. Average duration of stay of outfitter's clientele in 1981.

Duration of Stay	Southern Road	Northern Road	Northern Remote	All
1-4 days	21 805	30 438	10 139	62 382
5-7 days	7 374	8 255	2 519	18 148
>7 days	2 490	1 773	138	4 401
All	31 669	40 466	12 796	84 931

Table 8. Monthly distribution of guest-days by category of operation.

Month/Category	Northern Remote	Northern Road	Southern Road	All
January	0	4 123	675	4 798
February	0	4 970	864	5 834
March	0	7 075	908	7 983
April	0	4 588	11	4 599
May	5 693	19 266	15 471	40 430
June	22 595	45 151	22 709	90 455
July	9 014	46 006	34 697	89 717
August	4 134	34 057	25 446	63 637
September	5 414	15 264	15 005	35 683
October	458	7 481	6 327	14 266
November	0	4 866	1 160	6 026
December	0	3 401	1 621	5 022
Annual Total	47 308	196 248	124 894	368 450

clients from the rest of Canada. The northern road-access operations were primarily dependent on the Saskatchewan market which provided 59% of the clientele, and secondarily on the United States market, which provided 27% of the clients. Residents from countries other than the United States provided only incidental business volumes for all categories of operation.

In 1981, the outfitting industry was a highly seasonal business, with slightly more than 90% of the 84 931 guests being served in the period May-September. The peak months of activity were June and July, after which there was a decline through the balance of the summer season. The seasonality of operations was most evident in the northern remote-access category where all operations were seasonal and where activity peaked in the month of June with 45% of the number of guests served. Obviously, the concentrated activity over a short operating period presents a major constraint to the successful operation of an outfitting enterprise.

The survey data indicated the average duration of stay for 74% of all guests served did not exceed four days, the proportion of guests staying from 5-7 days was 21%, while only 5% of the guests stayed in excess of seven days (Table 7). Duration of stay did not vary significantly for either Canadian or American clientele or for the categories of operation.

Saskatchewan outfitters were estimated to have provided 368 450 guest-days in 1981 (Table 8). Both the highly seasonal nature of the industry and the short duration of stay were reflected in the monthly distribution of guest-days. The survey data indicated that approximately 70% of all guest-days were provided to hunters and anglers (Table 9). There was virtually total reliance on fishing and hunting clientele in the northern remote-access category, a contrast with the road-access operations who were estimated to generate approximately one-third of their guest-days from other sources.

Table 9. Fishing and hunting guest-days in relation to total guest-days.

Category	Total Guest-Days	Fishing/Hunting Guest-Days
Northern Remote	47 308	46 752
Northern Road	196 248	126 194
Southern Road	124 894	83 824
All	368 410	256 770

Capacity utilization

The Saskatchewan outfitting industry is estimated to have used 40% of potential bed capacity in 1981 (Table 10). The northern remote-access operations, exclusively dependent on fishing and hunting clientele, used 30% of capacity. Although better than the other categories, even the 45% utilization rates in the northern road-access category indicated considerable excess bed capacity.

Table 10. Capacity utilization of outfitting services.

	Actual Guest-Days	Potential Guest-Days	Capacity Utilized
Northern Remote	47 308	156 862	30.2%
Northern Road	196 248	432 974	45.4
Southern Road	124 894	330 560	37.8
All Categories	368 410	920 396	40.1

INDUSTRY REVENUES AND EXPENSES

This section presents estimates of industry revenues and expenses in 1981, providing a perspective of aggregate financial performance. Survey data are then compared to assess differences in financial performance, the objective being to identify factors influencing profitability. (The items of revenue and expense are presented in an uniform cost accounting model, for which the accounting framework and the glossary of terms are defined in Appendix 4.)

AGGREGATE FINANCIAL PERFORMANCE

Saskatchewan's outfitters were estimated to have realized total gross income of $19 735 000 on 1981 operations and to have incurred expenses of $18 934 000, thereby earning a pretax net income of $801 000 (Table 11).

The total gross income was largely derived from retail services and package plans, each source representing approximately 37% of income. Seventy-five percent of retail service revenues were derived from retail store/fuel sales and 25% from beverage room/dining room sales. In order of importance, other sources of revenues included accommodation services, outfitting services and miscellaneous income.

The cost of goods sold, a measure of the direct costs of production for outfitters, was estimated to be $12 954 000, 66% of gross income. The single largest direct expense item was the cost of retail goods sold followed by transportation expenses. Direct labour expenses, the payments to housekeeping/kitchen staff, guides, general labourers, store and food service employees, and maintenance workers, were the third largest item of direct production costs. The remaining items of expense, in order of magnitude, included property operation and

Table 11. Aggregate revenues and expenses of Saskatchewan outfitters on 1981 operations (values in thousands of $).

Item/Category	Northern Remote	Northern Road	Southern Road	All
Gross Income				
Package Plans	$5 426	$1 770	$ 18	$7 214
Accommodation Service	121	1 222	1 198	2 541
Outfitting Service	352	858	350	1 560
Retail Services	148	2 812	4 358	7 318
Miscellaneous	90	221	791	1 102
Total Gross Income	$6 137	$6 883	$6 715	$19 735
Expenses				
Cost of Goods Sold				
Cost of Retail Goods Sold	172	1 438	3 182	4 792
Direct Labour	707	417	850	1 974
Transportation	2 057	622	0	2 679
Property Operation/Maintenance	927	753	279	1 959
Energy	353	447	212	1 012
Vehicle	96	127	226	440
Miscellaneous Direct	1	78	10	89
Total Cost Goods Sold	$4 313	$3 882	$4 759	$12 954
Gross Profit	$1 824	$3 001	$1 956	$ 6 781
Selling and Administration				
Administration and General	144	74	62	280
Marketing	507	271	110	888
Indirect Labour	197	447	379	1 023
Insurance	95	120	107	322
Leases/Fees/Taxes	341	153	235	729
Miscellaneous Indirect	9	0	3	12
Total Selling and Administration	$1 293	$1 065	$ 896	$ 3 254
Share for Capital	531	1 936	1 060	3 527
Depreciation Allowances	398	470	579	1 447
Interest on Long Term Debt	393	357	239	989
Interest on Working Capital	86	90	114	29
Total Expense	$6 483	$5 864	$6 587	$18 934
Pretax Income (Loss)	$ -346	$1 019	$ 128	$ 801

maintenance, energy and utility expenses, vehicle expenses and miscellaneous direct expenses.

• The gross profit of $6 781 000 was calculated as the difference between gross income and the cost of goods sold. This was the margin available to cover selling and administration costs and provide a share for capital. The gross profit margin, the ratio of gross profit to gross sales, was 34%.

Selling and administration expenses were estimated to be $3 254 000, 16% of gross income. Wages and salaries to office and managerial staff were the largest item, representing approximately one third of total selling and administration expenses. The second most important item was marketing costs, followed by leases/fees/taxes, insurance costs, administration and general expenses and miscellaneous indirect expenses.

The share for capital was $3 527 000, the amount available to cover interest expenses, depreciation allowances, and provide net income for outfitters. Forty-one percent of the share for capital was allocated to depreciation allowances, 28% to meet interest payments on long-term debt, 8% to meet interest payments on working capital and, finally, 23% remained as provision for net income on operations.

Northern remote-access establishments

The 69 outfitters in this category were estimated to have a gross income of $6 137 000, total expenditures of $6 483 000, and a negative net income before tax of $346 000 on 1981 operations (Table 11).

The reliance on the provision of access to resource based activity was evident, with 89% of income generated by package plan revenues and 6% by outfitting services, while all remaining sources of income contributed only 5% to income. Retail services represented only a minor source of revenues, in sharp contrast with the other categories of operation.

The total cost of goods sold of $4 313 000 represented 70% of gross sales. The single most important item of direct expense was the cost of transportation, an item which included the expense of moving staff, guests and supplies in and out of the base and outpost camps. Since the cost of goods sold was higher than industry-wide costs, the gross profit margin was correspondingly lower, gross profit being 30% of income as compared with 34% for the industry as a whole.

Selling and administration costs of $1 293 000, 21% of gross sales, were higher for northern remote operations than for the industry as a whole. The effect of proportionately higher production costs was a smaller margin available as a share for capital. The capital expense items on depreciation and interest totalled $877 000, an amount which exceeded the $531 000 share for capital by $346 000, the latter amount being the estimated pretax loss on operations.

The survey data suggest that 99% of the revenues generated by the remote-access operations were attributed to fishing activity. Ninety-eight percent of the direct expenses were estimated to be spent in the provision of access to fishing opportunity, so gross profits were essentially attributed to fishing activity.

Northern road-access establishments

The aggregate financial statement for the northern road-access operations, presented in Table 11, indicated a total gross income of $6 883 000, expenses of $5 864 000 and pretax income on 1981 operations of $1 019 000.

These facilities represent the intermediate category of operation, combining elements of northern remote-access operations but also generating significant revenues from related sources. Accordingly, the sources of income were the most diverse of all operations. While retail services were the single largest source of revenue (41% of gross), substantial earnings were also derived from each of package plans (26%), accommodation services (18%) and outfitting services (13%).

The total costs of goods sold was $3 882 000, 56% of gross income. The most important item of expense was the cost of retail goods sold, followed by property operation and maintenance. The significant outlays on transportation services reflected the continued importance of package plans and outfitting service revenues to certain of the road-access operations. The gross profit of $3 001 000, 44% of income, was higher than for the industry as a whole and, as a result, there was a larger share to cover other expenses and provide net income. The selling and administration costs totalled $1 016 000, 16% of income, leaving $1 936 000 as the share for capital. This was allocated to depreciation allowances (24%), to interest expense on long-term debt (19%), and to interest expense on working capital (5%), leaving an estimated pretax income of $1 019 000, some 52% of the share for capital.

Fishing was the activity most important to the northern road-access operations with approximately 80% of income attributed to fishing activity, the remaining income distributed over seven other activities (Table 12). General vacation and retail trade were the second largest revenue sources, accounting for 6% and 5% respectively. The remaining sources of revenues, in order of importance, included big game hunting, local trade, winter vacation activity, with miscellaneous sources and game bird hunting each representing less than 1% of revenue. The direct expenditures followed the same general pattern as the revenues, with direct expenses on fishing related activity estimated to represent 80% of total direct costs. As a result, approximately 80% of total gross profit on 1981 operations was from fishing activity.

Table 12. Income and direct expenses by activity for northern road-access facilities (values in thousands of $).

Activity	*Income*	Direct Expenses	Gross Profit
Fishing	$5 507	$3 121	$2 386
Big Game Hunting	272	207	65
Game Bird Hunting	26	16	10
General Vacation	419	161	258
Winter Vacation	116	176	-60
Retail Trade	356	143	213
Local Trade	154	59	95
Miscellaneous	32	---	32
All Activities	$6 883	$3 882	$3 001

Table 13. Income and direct expenses by activity for southern road-access facilities (values in thousands of $).

Activity	Income	Expenses	Gross Profit
Fishing	$1 941	$1 331	$610
Big Game Hunting	387	337	50
Game Bird Hunting	8	6	2
General Vacation	3 205	1 949	1 256
Winter Vacation	89	140	-51
Retail Trade	610	442	168
Local Trade	452	492	(40)
Miscellaneous	23	62	(39)
All Activities	$6 715	$4 759	$1 956

Southern road-access establishments

The 69 facilities included in this category were estimated to have generated gross income of $6 715 000, to have expenses of $6 587 000 and to have realized an aggregate pretax income of $128 000 on 1981 operations (Table 11).

Retail service revenues were the principal source of revenues, with revenues of $4 358 000 representing 65% of total gross income. Accommodation service revenues provided 18% of gross income and miscellaneous sources 12%. The sale of package plans, providing less than 1%, and revenues from outfitting services (5%), represented insignificant income to this segment of the industry.

Direct production costs were estimated to be $4 759 000, 71% of total revenues. The major items of direct expense were the cost of retail goods sold and direct labour expenses, representing 67% and 18% of total direct expense. The gross profit margin of 29% was slightly lower than for the industry as a whole. Total selling and administration expenses were $896 000, leaving a share for capital of $1 060 000. The share for capital was distributed among depreciation allowances ($579 000), interest on long-term debt ($239 000), interest on working capital ($114 000) and as pretax income ($128 000).

The southern road-access facilities consist of operations which have, by and large, completed the transition from providing access to wilderness-based resource activity to the provision of retail services to general vacation activity. This was reflected in the estimates of revenues and direct expenses by activity, with general vacation activity representing 48% of revenues (Table 13). Retail trade (10%) and local trade (7%) were also significant revenue sources. Fishing (29%) and big game hunting (6%) were important sources of revenue, but there was clearly much less emphasis on these activities than for the northern operations.

COMPARATIVE FINANCIAL PERFORMANCE

The comparative financial analysis provided further insights into the revenue and cost structure of Saskatchewan's outfitting industry. This analysis, which examined the financial sample of 53 outfitters, indicated that 24 of the 53 incurred a pretax loss on 1981 operations. Furthermore, the cash flow earnings of the sampled outfitters, calculated by adding back the interest expenses and depreciation allowances to the operating profit or loss, were very low. Twenty-five of the outfitters realized cash flow earnings of less than $9 000 and only 1/4 of the sample realized cash flows greater than $26 000. If this sample is indeed representative of industry operations, 1981 appears to have been a financial failure for much of the outfitting industry.

The calculations of the income statement are not complicated. If revenues are greater than the sum of the cost of goods sold, selling and administration costs and annual capital costs, then profits will result; otherwise, costs exceed revenues and there is a loss on operations. In this regard, annual profitability is determined by the interaction of four factors: revenues, which may be thought of as an indicator of sales efficiency; cost of goods sold, indicative of production efficiency; selling and administrative costs, indicative of administrative efficiency; finally, the capital cost structure. With these factors in mind, the financial sample was examined to identify what separated the profitable from the unprofitable operations.

The long-run viability analysis was conducted in order to assess whether the earning potential of outfitting establishments was sufficient to cover long-term investment costs, that is, whether or not outfitters were generating sufficient cash flows to replenish their capital assets over time and provide a return on their investments. The analysis suggested that, with few exceptions, the industry is not generating cash flows commensurate with its long-term investment requirements. Thus, not only were the operating results for 1981 for many operations deemed a failure, the longer term financial prospects of these operations appear equally unfavourable.

On the surface, it might be argued that a simple extrapolation of operating results in a year which provided poor financial results will predictably result in projections of poor financial prospects. The conclusion on industry's ongoing viability derived, however, from the sensitivity analysis in which the variations in interest rates, capital investments and revenues necessary to achieve long-term viability were examined. In each category of operation, the sensitivity analysis suggested that major rather than marginal adjustments would be required if operations were to achieve returns consistent with ongoing viability. The sensitivity analysis also suggested no single approach to achieving long-term viability would likely be feasible because of the magnitude of the adjustments required. Without improvements in the revenue generating potential and production efficiency of the operations, the required reduction in capital investments approaches the estimated replacement cost of assets. Therefore, an issue of concern to the industry and its regulators should be the financial stability of the industry which, in a word, might be described as precarious.

Northern remote-access operations

Selected financial and operating statistics for the sample of northern remote-access operations are presented in Table 14. For the 17 operations with 30 beds or less, the average gross income was $48 000, average total expenses were $51 000 and the resulting pretax loss on operations was $3 000. Seven reported a pretax profit and 10 a pretax loss, one of only two categories where more than one-half of the operations reported net losses on operations.

Eight operations reported negative cash flows. Their average gross income was $30 000, almost 28% less than the group average, differences resulting from both fewer guest-days and lower revenues per guest-day. Average revenues per guest-day were $63 for the least successful operations, compared with the $204 per guest-day earned by the most successful operations. However, the most significant problem for the operations with negative cash flows was the high cost of goods sold in relation to revenues earned. For 5 of the 8, there was a negative gross profit, which means a negative amount was available to cover selling and administration costs, let alone to provide a share for capital.

Differences in selling and administration costs and capital costs are not considered to be determining factors in explaining variations in performance. Increases in total guest-days and capacity utilization rates generally corresponded to improved cash flows, the exception being the most successful operations which generated fewer guest-days at significantly higher revenues per guest-day than the group average.

The average revenue for the 4 operations with more than 30 beds was $205 000, average expenses were $209 000 and the pretax loss on operations was $4 000. Two operations reported positive pretax income and 2 reported a loss. The average cash flow was $14 000, including one operation with negative cash flows, 2 with positive cash flows less than $26 000 and 1 with cash flows greater than $26 000.

The operation with the largest cash flows earned 46% less revenue than the average but operated with much lower direct costs, generating a larger gross profit margin which translated into higher pretax income and cash flows. By contrast, the establishment with negative cash flows earned significantly less than the group average, generating fewer guest-days at a lower revenue per guest day. The gross profit margin for this operation was comparable to the others sampled but the selling and administration expenses as a proportion of revenues were significantly higher and expenses for interest costs and depreciation allowances were greatest, the net effect being a substantial pretax loss on operations.

Long-run viability estimates for the sample of northern remote-access operations indicated the cumulative present value of cash flows was $1 344 000, replacement costs were $9 155 000 and the net present value was -$7 811 000, indicating an extremely unfavourable relationship between cash flow earnings and long-run investment costs (Table 15).

None of the operations sampled generated a positive net present value at the 10% discount rate used in the calculations, but two operations with 30 beds or less showed investment feasibility at a 5% discount rate. The magnitude of the gap between investment costs and benefits was so large that substantial changes in the revenue and cost structure will be required for the operations to achieve returns consistent with ongoing viability requirements. It appears no single approach will be sufficient to enhance the financial performance of sampled remote-access operations. Given the long-run investment costs of sampled operations and their existing production and sales efficiency, the incremental revenues required to provide improved cash flow earnings were extremely large multiples of current revenues. These incremental revenues cannot be achieved by marginal adjustments in guest-days or revenues per guest-day.

It has been noted above that an unfavourable relationship between revenues and the direct costs of production existed for several of the operations and, as a result, they were generating negative cash flows. A prerequisite

Table 14. Selected financial and operating statistics for northern remote-access operations (average values).

Item/Category	≤ 30 Beds		>30 Beds	
Financial Statistics				
Gross Income	$48 000		$205 000	
Cost of Goods Sold	29 000	(.61)*	157 000	(.77)
Gross Profit	19 000	(.39)	48 000	(.23)
Selling and Administration	12 000	(.25)	33 000	(.16)
Share for Capital	7 000	(.15)	15 000	(.07)
Interest Expenses	5 000	(.11)	11 000	(.05)
Long-term Debt	4 000		10 000	
Working Capital	1 000		1 000	
Depreciation Expenses	5 000	(.11)	8 000	(.04)
Total Expenses	51 000	(1.06)	209 000	(1.02)
Pretax Income	-3 000	(-.06)	-4 000	(-.02)
Cash Flows	6 000	(.13)	14 000	(.06)
Operating Statistics				
Days of Operation	115 days		128 days	
Guest Day Capacity	1 398 g-days		5 844 g-days	
Guest Day Realized	459 g-days		1 327 g-days	
Utilization Rates	0.33		0.23	

*Numbers in brackets are the ratio of the item to gross income

Table 15. Long-run viability estimates for northern remote-access operations (values in thousands of $).

Capacity	Number Operations	Present Value Cash Flows	Replacement Costs	Net Present Value
≤30	17	$ 854	$5 708	$-4 854
>30	4	490	3 446	-2 957
All	21	$1 344	$9 154	$-7 811

Table 16. Selected financial and operating statistics northern road-access operations (average values).

Item/Category	≤30 Beds		>30 Beds	
Financial Statistics				
Revenue	$56 000		$139 000	
Cost of Goods Sold	29 000	(.52)*	80 000	(.58)
Gross Profit	27 000	(.48)	59 000	(.42)
Selling and Administration	11 000	(.20)	16 000	(.12)
Share for Capital	16 000	(.29)	43 000	(.31)
Interest Expenses	5 000	(.09)	8 000	(.06)
Long-term Debt	4 000		6 500	
Working Capital	1 000		1 500	
Depreciation Expenses	5 000	(.09)	8 000	(.06)
Total Expenses	50 000	(.89)	113 000	(.81)
Pretax Income	6 000	(.11)	26 000	(.19)
Cash Flows	15 000	(.27)	41 500	(.30)
Operating Statistics				
Days Operation	146 days		226 days	
Guest Day Capacity	3 503 g-days		10 467 g-days	
Guest Day Realized	1 854 g-days		3 976 g-days	
Utilization Rates	0.53		0.38	

*Numbers in brackets are the ratio of the item to gross income

to short-run, let alone long-run viability, is that a more favourable relationship be developed between the components of cost and revenues. Without improvements in production and administrative efficiency, there is no prospect that additional revenues can be translated into positive cash flow earnings. For those operations with positive cash flows, there is also the alternative of reducing the level of investment in facilities in order to achieve a desirable balance between benefits and costs. The required reduction in capital costs for 15 of the 21 operations surveyed would exceed 76% of their estimated replacement costs. Reductions of this magnitude are not likely feasible. For some operations, the necessary adjustments which in combination would ensure long-run viability may not be realistic and, at such time as new capital investments are required, exit from the industry will be inevitable.

Northern road-access operations

The 9 operations in the northern road-access category with 30 beds or less, had average gross income of $56 000, expenses of $50 000 and an average pretax income on operations of $6 000 (Table 16). The average cash flow for this sample was $15 000. Five of the 9 reported a pretax loss on operations and 4 reported positive pretax income. Two operations had negative cash flows, 3 were in each of the $0-9 000 and $9 001-26 000 cash flow intervals while 1 had cash flows greater than $26 000.

The largest cash flow earner also had the largest gross income, slightly more than double the group average. The revenue base for this operation was essentially retail services and other sources which together provided 92% of gross income. The operation generated only a minor portion of its income from accommodation and outfitting revenues, with the third lowest number of guest-days and the lowest capacity utilization rate, but this situation was offset by revenues from other sources. There were 2 other operations in the sample with extensive revenues from retail services, generating 30% and 50% of their income from these sources and, as a result, earning considerably more than the group average. At the other extreme, the negative cash flow category included an operation with gross receipts less than $10 000, the result of few guest-days, low revenues per guest-day and limited income from other sources.

The operations with 30 or fewer beds incurred lower direct costs in relation to gross income than other samples, and consequently earned higher gross profit margins. However, there was considerable variation in the production costs of these operations, with one of the operations incurring direct costs in excess of revenues. There was no discernable pattern to the influence of either selling and administration costs or capital costs on the performance of this sample.

The average revenue for the operations with more than 30 beds was $139 000, expenses were $113 000, and the pretax income on 1981 operations was $26 000. Average cash flows were $41 500. Nine of the 11 operations in the sampled reported pretax income on 1981 operations and 2 reported pretax losses. There were 4 operations in each of the $0-$9 000 and $26 000+ cash flow categories and 3 with cash flows between $9 001-$26 000.

The average income for the operations with cash flows greater than $26 000 was $264 000, considerably higher than the sample average. Three of the operations in this cash flow interval derived between 40%-77% of their revenues from retail services, buffering a situation where utilization rates were somewhat lower than other operations surveyed. The average income for operations with cash flows between $0-$9 000 was $58 000, compared with average income of $80 000 for the operations with cash flows between $9 000-$26 000. The difference in revenues resulted from additional guest-days, since the revenues per guest-day were comparable. The larger cash flow earners realized an average of 5 077 guest-days, more than double the average guest-days for the $0-$9 000 category.

The average cost of goods sold represented 55% of revenues, so the gross profit margin was 0.45. As in other of the samples, lower revenues were coupled with higher production costs and proportionately lower gross profit margins. This was most evident in the $0-$9 000 cash flow interval where the range of gross profit margins was 0.28-0.40. Selling and administration costs absorbed an average of 12% of revenues, but these costs were proportionately lower for the large cash flow generators than for the balance of the sample. The large cash flow operations also incurred the lowest capital costs in relation to revenues, 7% to be compared with one operation in the sample which incurred capital costs equal to 68% of revenues.

The long-run viability estimates for the sample of northern road-access operations indicated the long-run investment costs of the sampled enterprises exceed the present value of cash flows of the industry by $3 198 000 (Table 17). Two operations showed a positive net present value at a 10% discount rate, both remained viable at a 15% discount rate, but only one at the 20% discount rate. Conversely, at a 5% discount rate, 2 operations with more than 30 beds also show a positive net present value. All remaining operations have a negative net present value at discount rates of 5% or more.

Some operations in this sample face substantial hurdles in improving their financial performance. As was the case for the northern road-access operations sampled, the prospects for long-run viability will be conditional on substantial revenue gains, improving production and administrative efficiency and, as investment requirements arise, reducing these costs substantially from their current replacement estimates. Ten of the 20 operations sampled, for example, would require cost reductions of 75% or more in the absence of revenue changes or improvements in operating costs. Alternatively, revenue increases of more than 300% would be required by 8 of these operations if there were no changes in cost. The feasibility of adjustments of this magnitude is questionable and, as

Table 17. Long-run viability estimate for northern road-access operations (values in thousands of $).

Capacity	Number Operations	Present Value Cash Flows	Replacement Costs	Net Present Value
≤30	9	$1 142	$3 258	$-2 116
>30	11	3 843	4 925	-1 082
All	20	$4 985	$8 183	$-3 198

Table 18. Financial and operating statistics for southern road-access operations (average values).

Item/Category	≤30 Beds		>30 Beds	
Financial Statistics				
Gross Income	$142 000		$175 000	
Cost of Goods Sold	98 000	(.69)*	125 000	(.72)
Gross Profit	44 000	(.31)	49 000	(.28)
Selling and Administration	16 000	(.11)	21 000	(.12)
Share for Capital	28 000	(.20)	28 000	(.16)
Interest Expenses	11 000	(.07)	6 000	(.04)
Long-term Debt	9 000	(.06)	3 000	(.02)
Working Capital	2 000	(.01)	3 000	(.02)
Depreciation Expenses	12 000	(.08)	15 000	(.09)
Total Expenses	137 000	(.96)	168 000	(.96)
Pretax Income	6 000	(.04)	7 000	(.04)
Cash Flows	26 000	(.19)	25 000	(.14)
Operating Statistics				
Days Operation	229 days		195 days	
Guest Day Capacity	4 115 g-days		10 918 g-days	
Guest Day Realized	2 026 g-days		3 759 g-days	
Utilization Rates	0.51		0.40	

*The numbers in brackets are the ratio of the item to gross income

Table 19. Long-run viability estimates for the sample of southern road-access operations (values in thousands of $).

Capacity	Number Operations	Present Value Cash Flows	Replacement Costs	Net Present Value
<30	7	$1 531	$4 342	$-2 811
>30	5	1 048	4 259	-3 210
All	12	$2 579	$8 601	$-6 021

a result, the long-run viability of the operations is in doubt.

The viability of the remaining operations appears more sensitive to changes in the revenue and cost structure. While the initial analysis suggests a nonviable position, revenue adjustments of 75% or less would make 4 nonviable operations viable, all other factors constant. Two of the operations would become viable with capital cost reductions of less than 21% if all other revenues and costs did not change.

Southern road-access operations

Financial and operating statistics for the sample of southern road-access operations are presented in Table 18. For the 7 operations with 30 or fewer beds the average gross income was $142 000, average total expenses were $137 000 and pretax income on operations was $6 000. The average cash flow was $26 000. Five of the 7 with 30 beds or less reported a pretax profit on operations, the other 2 reported losses on operations. The 2 operations with operating losses had limited cash flows, one reporting negative cash flows and the other cash flows less than $9 000. Of the operations reporting pretax profit, one had cash flows between $9 001-$26 000 and 4 had cash flows greater than $26 000.

The essential difference between the profitable and nonprofitable operations in this sample was the degree to which revenues from accommodation and outfitting services were supplemented by revenues from retail store, beverage room and dining room services. The 2 operations which fared much poorer than the rest generated lower revenues, 72% and 86% less than the group average, because revenues from retail services were substantially lower than retail revenues of other operations. Even though one of these operations generated the largest number of guest-days and realized the best utilization rate, this did not offset the lack of revenues from other sources.

The average cost of goods sold represented 69% of total gross income, leaving an average gross profit margin of 31%. The operation with negative cash flows had direct costs much higher as a proportion of revenues than average. By contrast, the largest cash flows were earned by operations which had higher revenues and lower direct costs than average. Selling and administration costs did not represent a major source of variation in the performance of this sample. Long-term debt expenses, depreciation allowances claimed and interest on working capital costs were substantially higher for the facilities generating the largest cash flows, but earnings were sufficient that the expenses were covered and pretax incomes ranging from $3 000 - $31 000 were realized. Utilization did not provide a simple correlation with profitability, largely because accommodation revenues were less important than revenues from retail store, beverage room and dining room sales. This was well illustrated by the least successful operation of the sample which did not generate these ancillary revenues, and by the large cash flow generators which offset lower utilization rates and fewer guest-days with revenues from other sources.

The 5 operations with more than 30 bed capacity had average gross incomes of $175 000, expenses of $168 000 and pretax income of $7 000. Three of the 5 reported net incomes on operation, the other 2 reported a pretax loss. One operation had cash flows greater than $26 000 while the remainder generated cash flows between $9 001-$26 000.

Revenues from accommodation and outfitting services were less important than income from other sources, with retail services providing 60% of the revenues for the 4 operations with cash flows between $9 001-$26 000. The operation with the largest net income and cash flows realized a substantial source of revenues from retail services (45%) and from other services (48%), namely contracting, lease and rental income. Revenues from accommodation and outfitting represented only 7% of the revenue base for this operation.

The direct costs of production were relatively high for the sample, with an average cost of goods sold which equalled 72% of the gross income. The variability in direct costs noted in other samples was not observed here. Even though there were variations in other items, differences in these indicators were not significant in explaining variations in performance.

The long-run viability analysis for the sample of southern road-access operations indicated the cumulative present value of cash flows was $2 579 000, replacement costs were $8 601 000 and the net present value of the operations was -$6 021 000 (Table 19). None of the operations in the sample were considered viable at the 10% rate.

The sensitivity analysis indicated that with a change in the discount rate from 10% to 5% there was only minimal improvement in the viability of operations, with one of twelve operations being viable. The magnitude of the gap between the present value of cash flows and the present value of costs was substantial for the operations sampled. In order to achieve viability, five of the 12 would require an improvement in revenues in excess of 400% if there were no change in operating and capital cost structure. Alternatively, 7 of the 12 operations would require reductions in their capital investments of 75% or more in order to achieve a balance between benefits and costs.

ECONOMIC IMPACT ANALYSIS

The total economic impact of Saskatchewan outfitters in 1981 was estimated to have contributed $27 173 000 of gross domestic product in the Canadian economy, $15 280 000 of which accrued within Saskatchewan (Table 20) (Appendix 5 describes the concepts and methods used in this chapter). Saskatchewan outfitting operations were estimated to have provided 1 298 person-years of employment in 1981, including 966

Table 20. Total gross domestic product of Saskatchewan outfitters (values in thousands of $).

Item/Jurisdiction	Saskatchewan	Rest of Canada	Total
Government Goods and Services	$ 64	$ 60	$ 124
Commodity Indirect Taxes	1 011	1 008	1 998
Subsidies	-193	-239	-425
Other Indirect Taxes	535	581	1 093
Wages and Salaries	7 369	5 855	13 025
Supplementary Labour Income	248	359	595
Net Income Unincorporated Business	1 874	958	2 802
Other Operating Surplus	4 372	3 717	7 961
Direct Gross Domestic Product	$15 280	$12 299	$27 173

Table 21. The total employment impact of Saskatchewan outfitters (person-years of employment).

Source/Area	Saskatchewan	Rest of Canada	Total
Outfitters	681	41	722
Non-lodge Guiding	41	0	41
Direct Suppliers	138	58	196
Total direct impact	860	99	959
Indirect impact	43	85	128
Induced impact	63	148	211
Total Impact	966	332	1 298

Table 22. Direct gross domestic product of Saskatchewan outfitters (values in thousands of $).

Item/Jurisdiction	Saskatchewan	Rest of Canada	Canada
Government goods and services	$ 44	$ 34	$ 78
Commodity indirect taxes	521	410	931
Subsidies	- 70	- 16	- 86
Other indirect taxes	223	38	261
Wages and salaries	5 472	1 221	6 693
Supplementary labour income	135	64	199
Net income unincorporated business	928	89	1 017
Other operating surplus	2 896	508	3 404
Direct gross domestic product	$10 149	$2 348	$12 497

person-years of employment in the province (Table 21). The impacts occurred in several ways, each of which will be examined. First, there was the direct economic impact which contributed $12 497 000 of gross domestic product, including the value added of outfitters, the wages and salaries of non-lodge guiding operations, and the value added of the direct suppliers of lodges.

The second level of impact was the indirect economic impact which contributed $5 636 000 of gross domestic product, including the value added created at an earlier stage of production and economic activity. This impact resulted from purchases by industries in order to supply goods and services to the direct suppliers of lodges. For example, the value added in the airplane parts manufacture industry which can be attributed to the demands of outfitters for transportation services would be classified an indirect economic impact. The extent of this impact depends not only on the magnitude of expenditures, but also on the level of development of a region and trading patterns between regions.

The third level of economic impact was the induced economic impact which contributed $9 039 000 of gross domestic product through the respending effect of incomes earned by households. Household incomes were created as a consequence of the expansion of economic activity resulting from outfitting operations, in turn giving rise to additional income through a household income multiplier effect.

DIRECT ECONOMIC IMPACT

The direct economic impact was estimated to have contributed $12 497 000 of gross domestic product to the Canadian economy, of which $10 149 000 occurred within Saskatchewan (Table 22). The value added of outfitters equalled $6 524 000, this being the difference between industry gross income and the purchase of goods and services from other firms. The value added measures the wages and salaries, rents and profits created by outfitters. As estimated earlier, the value added included wages and salaries of $2 997 000 and a share for capital of $3 527 000.

The second element of the direct economic impact is the value added by the activity of guides who serve outfitters' clientele, even though they are not directly employed by outfitters. It was estimated that the gross earnings of non-lodge guides were $493 000, an amount which was included in the economic impact analysis as wage and salary earnings.

The third element of direct economic impact is the value added of direct suppliers as a consequence of their sales to outfitters. Outfitters were estimated to have purchased $13 211 000 of goods and services from other firms, which resulted in $5 480 000 of gross domestic product.

Over 90% of the $2 997 000 in wages and salaries provided by outfitters accrued to residents of Saskatchewan, while 40% was earned by residents of northern Saskatchewan (Table 23). The single largest item of expense was the remuneration to management services, equal to 1/3 of the total wage bill.

Seasonal employment was provided for 1 434 persons in 1981, with 95% of the employment being provided for Saskatchewan residents (Table 24). Of the total, northern residents obtained 782 seasonal jobs. The main categories of employment were housekeeping/kitchen, guiding and management services. The 1 434 seasonal jobs provided the equivalent of 722 person-years of employment. The total direct employment impact included the equivalent of 959 person-years of employment, including 722 person-years provided by outfitters, 41 person-years of non-lodge guiding employment, and 196 person-years of employment in firms providing goods and services to outfitters.

INDIRECT ECONOMIC IMPACT

The indirect economic impact is estimated to have resulted in $5 636 000 of gross domestic product for the Canadian economy in 1981, including $2 043 000 of gross domestic product within the Saskatchewan economy (Table 25). While most of the direct economic impact accrued within Saskatchewan, less than half of the indirect economic impact occurred within the province, indicative of the economic linkages between Saskatchewan and the more industrialized regions of the Canadian economy.

Income multipliers and employment multipliers measure the extent of the linkages between sectors. The indirect income multiplier, the ratio direct plus indirect gross domestic product/direct gross domestic product, equalled 1.20 for Saskatchewan. For every dollar of wages and salaries, profits and rents created through the direct economic impact, there was an additional $0.20 of gross domestic product created within the province.

The wages and salaries generated through the indirect economic impact process provided the equivalent of 128 person-years of employment, of which 43 person-years were employment opportunities within the province. The indirect employment multiplier, the ratio of direct plus indirect employment/direct employment, equalled 1.05. For every 100 jobs in direct employment activities (outfitters, non-lodge guiding and direct suppliers of outfitters), there were an additional 5 jobs created within the province.

INDUCED ECONOMIC IMPACT

The induced economic impacts of Saskatchewan outfitters were estimated to have contributed $9 039 000 to gross domestic product in 1981, of which $3 087 000 accrued within Saskatchewan (Table 26).

The total income multiplier and the total employment multiplier are indicators of the extent of total economic impact. The total

Table 23. Estimated wages and salaries in Saskatchewan outfitting operations in 1981 (values in thousands of $).

Type	Total Wages + Salaries	Saskatchewan Wages + Salaries	Northern Saskatchewan Wages + Salaries
Guides	$ 485	$ 484	$ 390
Housekeeping/kitchen	718	670	189
Rental services	272	264	129
Maintenance/labourer	339	383	193
Management	101	900	290
Miscellaneous	166	97	22
Total wages + salaries	$2 997	$2 798	$1 213

Table 24. Estimated employment in Saskatchewan outfitting operations in 1981.

Type/Category	Total Employment		Saskatchewan Employment		Northern Saskatchewan Employment	
	No.	PYR[a]	No.	PYR	No.	PYR
Guides	416	215	403	215	368	198
Housekeeping/Kitchen	420	133	404	122	178	45
Retail Services	108	48	105	47	72	28
Maintenance/Labour	119	59	116	56	48	23
Management	315	242	283	221	91	71
Miscellaneous	56	25	48	20	25	89
Total	1 434	722	1 359	681	782	454

[a] One person-year of employment = 225 working days.

Table 25. Indirect gross domestic product of Saskatchewan's outfitters (values in thousands of $).

Item/Jurisdiction	Saskatchewan	Rest of Canada	Canada
Government goods and services	$ 8	$ 10	$ 18
Commodity indirect taxes	86	91	177
Subsidies	- 58	102	- 160
Other indirect taxes	78	160	238
Wages and salaries	731	1 643	2 374
Supplementary labour income	45	111	156
Net income unincorporated business	461	324	785
Other operating surplus	692	1 356	2 048
Indirect gross domestic product	$2 043	$3 593	$5 636

Table 26. Induced gross domestic product of Saskatchewan's outfitters (values in thousands of $).

Item/Jurisdiction	Saskatchewan	Rest of Canada	Canada
Government goods and services	$ 13	$ 16	$ 29
Commodity indirect taxes	404	486	890
Subsidies	- 65	- 114	- 179
Other indirect taxes	233	361	594
Wages and salaries	1 166	2 792	3 958
Supplementary labour income	67	172	239
Net income unincorporated business	485	514	999
Other operating surplus	784	1 725	2 509
Indirect gross domestic product	$3 087	$5 952	$9 039

income multiplier was 1.51 for the province, indicating that for every dollar of direct gross domestic product there was an additional $0.51 of gross domestic product created through the indirect and induced economic impact process. The wage and salary component of induced gross domestic product provided the equivalent of 211 person-years of employment, of which 63 person-years were estimated to occur within Saskatchewan. The total employment multiplier, measured as the ratio direct plus indirect plus induced employment/direct employment, was 1.12. There were an additional 12 jobs created in Saskatchewan for every 100 jobs created through the direct economic impact process.

INDUSTRY ATTITUDES

Two questions were included in the survey to provide information on outfitters' perceptions of resource management and allocation issues. The first asked if the fish and game stocks in the outfitter's use area were sufficient to satisfy his clients and elicited suggestions for either maintaining or improving them. Most outfitters quickly formed the quantity of the resource into its quality and need for a sustained quality. Suggestions for maintenance or improvement of the resource often flowed into areas more appropriately covered by the second question which asked the outfitter to propose ways of resolving the perceived conflicts over resource use. Most had decided views on current allocation, control and management practices. In most cases the outfitters interviewed had difficulty in looking outside the problems of their particular business or locale to the wider problems being experienced by the industry throughout the province. Oftentimes, respondents took the opportunity of the survey to express concerns about things not directly related to the study but, in their view, having a substantial impact on their long-term viability. Despite these difficulties, common problems and resolutions have emerged from these discussions.

The following summary provides an overview of the different issues faced by Saskatchewan's outfitters in the geographical transition from the well developed south through to the northern frontier. Subsequently, the responses for each survey area are presented, in order to reflect the views expressed in greater detail.

OVERVIEW

The responses of operators suggested the conflicts in resource use are so widespread, acute and complex as to represent a major source of uncertainty to the industry. In this regard, the attitudinal survey combined with the financial survey to develop a profile of an industry facing considerable risk and uncertainty, an industry characterized by great instability. Fishing is the single activity most important to outfitters and, therefore, the conflict in use over fisheries resources is of paramount concern. The conflict exists at several levels, the most obvious being the conflict between sport and commercial fishing sectors but conflicts of increasing significance are arising between outfitter's clientele and other recreational users, and also among the outfitters themselves.

Outfitters are concerned with the impact of commercial fishing on the quantity and quality of recreation opportunity they can provide. This concern was reflected by comments on resource wastage, high cullage rates of game species, and the presence of abandoned nets filled with rotten fish. Furthermore, there was a feeling that the economic contribution of outfitters to the provincial economy, as measured on a dollar per pound basis, is far greater than the commercial sector which is in their view heavily subsidized. The suggestions on how the sport-commercial conflict could best be resolved

were varied. Some operators were of the view that radical changes in allocation policy were not necessary, but that better enforcement of existing regulations together with stocking programs where the lakes have been severely overfished would rectify the situation. Others felt that restrictions on commercial fishing would be needed. The zoning of lakes and/or areas as designated for one use or another were also offered as a solution to this conflict.

With the exception of the far north, there was concern raised over the conflict between outfitter's sport fishing clientele and other recreational users. In many cases, this conflict arises as a consequence of the increased tourism travel and recreation activity associated with improved access to wilderness areas. Operators are concerned with the adverse effects both on the resource and on their business as a consequence of expanded recreation activity. The concern is that in essence, development has expropriated their livelihood and investments. Some operators were concerned with the development of provincial campgrounds as a factor in stimulating recreation activity. Operators expressed concern over the lack of enforcement of fishing regulations, feeling that better enforcement was the preferred means of resolving this conflict. Others felt the indiscriminate overuse of easily accessible areas should be addressed by controlling access to these resources.

There was also reference to the problems which arise with increased competition between outfitters, an issue of resource allocation within the industry. The concern was expressed that the provincial government should develop a policy which would allocate land and water resources fairly so that established operators could be assured that as more licences are awarded their resource base is not eroded. Operators generally were of the view that allocation of new licences should be made with full consideration of the effect new licencees would have on currently operating lodges. In the Buffalo Narrows and La Ronge areas, there was growing concern over competition between licensed outfitters and non-licensed operations. Operators seek better enforcement of regulations to address this problems.

Operators also expressed concern over a number of issues which were described as general policy concerns. These included concerns with native hunting rights, the effect of improved access to wilderness areas, and the complications which arise with the existing system of leases. The concern with native hunting rights in part was a conflict of resource use between domestic and sport hunting, but also seems to reflect the feeling that there is a need to reduce "indiscriminate" hunting pressure in some way in order to maintain the productivity of big game resources. The concern with improved access to wilderness areas raised the issue of conflict between outfitters clientele and those recreationists able to gain access to the newly developed areas. It also reflected the outfitters concern that the wilderness experience is an integral attibute of the product being marketed by outfitters. In the absence of these features, the quality of their poduct is diminished, ultimately affecting their ability to compete in the marketplace.

The concern of operators over the current land lease arrangements was widespread. In the opinion of operators, tenure through purchase or long-term lease is essential to the long-term viability of the industry and the instability which characterizes the industry arises from this policy. The current lease arrangement was felt to curtail the ability of outfitters to obtain conventional sources of financing and create an impediment in the saleability of enterprises, insofar as it limits the market to those who have sufficient resources to buy a going concern without conventional financing. There was only qualified support for the idea of land purchase arrangements, since operators felt there is also a requirement for tenure in the resource that is integral to their operations. Furthermore, concern was expressed that the purchase of land would offer a "hollow" solution if there were not measures taken to control the number of leases and to preserve the quality of recreation experience.

REGIONAL RESPONSES

Northern area

Resource quantity and quality: Responses varied from "barely adequate" with some species in substantial difficulty to "abundant". All outfitters were concerned about future pressures especially on the more popular sport fish. Some of the camps had already instituted programs of catch limitations, both for the number and size of fish, and barbless hook fishing in the hope of retaining current populations and enhancing the availability of trophy size fish.

Resource management: Seventy-five percent of the outfitters surveyed felt little has been done to assess the resource and its ability to sustain itself under the present level of use. The allocation of the resource between sport and commercial use was thought to be a problem in 50% of the areas used by outfitters surveyed.

The conflict between sport and commercial fishing manifests itself in several ways. Outfitters feel that their clients resent the presence of commercial fishing nets in the very areas where they are hoping to catch trophy size fish. All outfitters decry the wastage which they maintain accompanies most of the commercial fishing operations, and many point out that the lack of enforcement of regulations contributes to this wastage. All cited cases of nets being abandoned even during good weather. One outfitter claimed that a long time commercial fisherman had indicated that an expert fisherman had an estimated 1 to 1 loss ratio. All pointed out that the amount paid by their clients for a pound of fish was in the region of 100 times that received by the commercial fisherman. Finally, outfitters fear for the viability of parts of their operations, especially the remote outcamps which are normally on smaller, more vulnerable lakes. Fifty percent said they had

invested in outcamps over the years and had accepted the stringent guest limitations set by the department only to find that a commercial fishermen was suddenly allowed to take several thousands of pounds of fish from the same lake.

As a means of resolving the perceived conflict in use, all outfitters suggested that areas be designated for one use or another and that major lakes be zoned between the two uses. All outfitters emphasized the need for substantially better enforcement of regulations for the commercial fishery. Fifty percent of those surveyed felt such approaches could only work if they were also based on biological surveys which identified the stability of the resource to all users.

Because of the increasing pressures on the resource, outfitters felt that without substantially better enforcement they would find themselves with a depleted and low quality resource. Should this occur, it would seriously impair their ability to compete with other prime angling areas in North America.

General policy concerns: All outfitters in this area expressed concern over four major issues: native hunting, increased access to virgin land, the problem of acid rain, and the purchase of leased land. The consensus was that all hunters should be subject to the same regulations, the "licence period should be the same for everyone" and that "birth right does not give people the right to destroy". These sentiments were generally expressed throughout the whole area and again seem to stem from incidents of wastage of the resource rather than a desire to stop this activity.

Outfitters were generally concerned about the substantial increase in access that mining roads are providing in the north. They referred to major problems of uncontrolled hunting especially in areas remote from enforcement control and the creation of nuisance animals, particularly bears, by the careless disposal of garbage primarily at temporary exploration sites. If tourism is to continue to contribute significant revenue to the province and the north, in particular, outfitters point out that "the tourist needs the image of being in the wilderness". Only by the strict control of potential pollution sources, limitations on the number of all-weather access roads and the enforcement of current pollution control standards particularly near major bodies of water can the image of pristine wilderness be retained.

Several outfitters voiced concern over the potential damage which the whole of the north could suffer from acid rain if the Alberta Tar Sands project becomes economically viable. Concerns stem from the known vulnerability of shallow lakes where the pH balance is already acidic. Operators felt that the government should maintain a strong stand for substantial pollution control.

Finally, all operators voiced concern about the system of leased land. Most operators agreed that "there is no security for people who invested their life savings". The major problems arising from the leases were the inability of operators to sell the camps easily because new owners felt especially vulnerable to the periodic review, and the unwillingness of many financial institutions to use the camp assets as security for money needed for renovation or expansion except where the operators had been in that location for many years and possessed substantial other assets. There was a consensus that the lease system contributed to the general instability of the industry.

Buffalo Narrows area

Resource quantity and quality: Although 60% of those surveyed felt the resource was sufficient for their current clientele, all outfitters cite current problems with at least one or more species. Most are concerned with both the quantity and size of the fish currently available and 40% felt that some stocking program is needed immediately or will be needed in the near future if the area is to continue to attract high paying sport anglers. Most outfitters have some form of camp regulation concerning the number of trophy size fish and all enforce the existing regulations on catch levels to ensure a continued supply of large size fish.

Resource management: While no outfitters felt there was a need for biological surveys, they did emphasize the need for fish enhancement programs. The major resource management issue is the sport-commercial conflict, which in their opinion largely exists because of the lack of enforcement of existing regulations. All operators surveyed felt enforcement was sporadic and 60% felt it was so minimal as to be non-existent.

Generally, the concerns over the sport-commercial conflict and the suggested solutions reflect the views expressed by northern region outfitters. As well, some outfitters suggested a general lowering of all fishing limits and some felt there should be more restricted commercial fishing seasons to avoid both the gamefish spawning runs and prime angling periods.

Where outfitters were involved in hunting, they saw the major resource management issue as being unrestricted native hunting which undermined efforts to control hunting pressure on large game stocks. All of the operators outfitting for hunting felt that native hunting should be restricted in some way. One operator also felt that the resident/non-resident seasons should be combined because an earlier resident season may reduce the kill for the non-resident season which is of generally higher economic value to both the province and the outfitter. Outfitters near newly accessible areas also suggested that hunting limits be strictly controlled by zones to ensure that accessible areas were not depleted completely or left with herds which would have little possibility for natural recovery.

A minor but growing area of conflict is between outfitters and other recreational users

of the resource. A few outfitters are competing for the same resource base with increased numbers of vacationers attracted by the improved access and the development of provincial campgrounds. They expressed concern that there was little control over the activities of people using the campgrounds and that the lack of enforcement of angling regulations may in time lead to serious depletion of the resource. Outfitters close to campgrounds were of the opinion that many people angling in the area are treating the resource as a source of cheap food and that general vacationers are not conservation minded.

Outfitters facing competition from other vacation traffic felt that only enforcement of existing regulations could ensure that the stocks, on which their economic survival depends, would not be destroyed.

General policy concerns: The major concerns centred around three main issues: increased access to wilderness areas, increased competition in the industry and the purchase of leased land. The consensus was that indiscriminate access to previously wilderness areas places an increased burden on all the region's resources. Many operators felt the adverse effects of access both on the resource and on their businesses could be alleviated if they were consulted before the roads were put in place. One operator pointed out that a nearby new road crossed through a spawning area and was located in the single worst place for the road to cross. Operators are concerned that the seemingly arbitrary placement of roads will undermine their business which has been built on the provision of a wilderness experience. As one operator said "How would you feel if you had paid for a fly-in camp experience and could sit and watch the 4 x 4s driving by".

In essence, what the operators fear is an expropriation of their livelihood and their investment. Where these changes have taken place rapidly, operators have been unable to meet the differing demands of the family oriented vacation market for new facilities and a variety of recreational activities, largely because their asset base has been eroded by the change in their environment.

Seventy-five percent of the outfitters in this sample expressed concern over the increasing competition in the industry. In part, this is a question of resource allocation within the industry, however, a large proportion of the operators seemed to view it as a problem of internal planning and policy for government. The operators did not feel that this problem would be resolved by simple freehold or long-term leasehold policies for outfitters, as one operator pointed out "you can set up an outcamp at great expense and with severely restricted use and then find someone else is flying in on a daily basis more people than you are permitted for a month!". Of even worse consequence was the concern of another operator, "there is nothing to stop the department from authorizing more base camps in this lake, that would destroy my business". Competition also comes from non-licensed operators. "Last year was a very poor year for us, but an operator without a licence on the other bay was always busy. His prices are lower because he doesn't have to buy licences and meet health and DTRR standards."

It was suggested the government should develop policy which would allocate land and water resources fairly so that established operators could be assured that as more licences are awarded their resource base was not eroded. Several suggested that policy similar to that governing trap lines, which would give an operator sole outfitting rights to certain areas of land or certain lakes, would alleviate conflicts, particularly where there are problems with outpost camps. Outfitters who expressed concern over non-licensed operators felt that lack of adequate enforcement of existing regulations had exacerbated the problem and they called for increased enforcement especially on lakes with existing licensed outfitters. They did not feel in either case that they should be required to act as enforcers or "informers" as this placed them in a difficult position as they had no legal claim to resources in particular areas, and these were their neighbours, on whom they were reliant in many ways.

Eighty-five percent of the outfitters in this area who currently hold leases indicated that they would like to purchase their land. Many indicated that lack of ownership undermined their financing ability or, as several older outfitters who were hoping to retire pointed out, it severely limited the people who could afford to buy a going concern. Those who owned their land indicated they felt that it had made expansion and renovation easier for them.

La Ronge area

Resource quantity and quality: Although only 15% of the outfitters in this area indicated that the quality and quantity of the resource was such that it did not satisfy their clients, all were concerned with the sustainable quality and the longer term stability of fish and large animal populations. Only the same small percentage indicated the resource could meet the needs of their clients, largely because of their diligence in restricting the use of the resource.

Resource management: There is a perception of outfitters surveyed in this region that, in effect, they are their own resource managers. Seventy percent of those surveyed felt current policies of the government undermined their ability to be effective resource managers. The major conflicts in this region are between outfitters and commercial fishing operations and between different recreation providers and users.

Seventy percent felt the conflicts result from a failure to enforce existing regulations and from the arbitrary decisions to re-allocate the resource without consulting all users. The concerns for enforcement of commercial fishing regulations were similar to those observed in the northern and Buffalo Narrows regions. Those operators close to heavily used recreation areas

also expressed concern over the lack of enforcement of fish limits, especially for non-camp recreationists.

The conflict between outfitters and the commercial fishing industry could be resolved, in the opinion of those surveyed, through better enforcement of existing regulations together with stocking programs where lakes have been severely over-fished. To alleviate the problems caused by both anglers and commercial fishermen using the lake or the same prime areas, 50% of those surveyed suggested commercial fishing seasons be restricted and changed to give priority to anglers. A smaller number of outfitters, 30%, suggested that lakes be zoned to minimize conflicts.

The second area of conflict is between outfitters and other recreational users. This is becoming increasingly important since the La Ronge region is becoming more accessible to normal vehicle travel. Because of the relative proximity to major population centres, the region is fast becoming a major family vacation area for the province. Outfitters who have previously run fly-in camps are dealing with a completely different clientele, vacationers with a different skill base and perception of the resource.

Many of these vacationers, in fact, are attracted to either lower cost cabin rentals or nominally priced recreation sites, rather than higher priced outfitting operations. These vacationers are also an attractive market for illegal camp operators who are licensed for a recreational use but who find that with little investment and minimal cost they can offer camping and trailer sites at prices which compete with those offered by licensed operations. Concern was expressed that illegal operators will eventually be granted commercial licences and they will compete on the same lakes as larger established outfitters.

The operators feel that the province is promoting overuse of the resource by increasing the number of licences for lodges, cabins and campgrounds without any regard for outfitters already established or for the capability of the resource to sustain itself under increasing pressure. Outfitters said that unlimited licensing will cause a deterioration in the quality of the recreation experience and a general degradation of tourism in the province. Seventy percent said that allocation of new licences should be made with full consideration of the maximum carrying capacity and renewal of the resource and the effect which new licencees would have on currently operating lodges. If the government controls and regulates then it must accept responsibility for sustained viability of licensed operations.

All outfitters near government owned facilities expressed concern over the lack of enforcement of fishing regulations, the generally poor quality of maintenance and management of the facilities, the health and safety regulations which are flaunted and the problems which their proximity to the outfitting camp have caused. As one operator said, "If we ran our camps in the same way, we'd be closed down". Of major concern are the lack of maintenance which places the camp operator in the position of assisting with clean-ups to maintain his own environment and the lack of enforcement of fishing regulations which leaves people to overfill their limit and in essence "fish for cheap food".

The third conflict area is between the outfitters and other resource users, primarily logging companies but also mining companies and the Saskatchewan Power Company (SPC). About 50% of the operators in the area are already affected by these resource users. Those in areas where there has been logging say the large animal populations have been severely depleted and that there are very few areas where there is any worthwhile hunting. While only 20% of all outfitters have been directly affected, all who operate where there is worthwhile timber are concerned about future incursions which would deplete hunting stocks and open up large areas to casual hunters and fishermen from the larger urban centres. The concern about increased mining activity centres again around access. Camp operators understand the importance of these activities to the economy of the province, what they wish the government to understand is that unlimited access into virgin territory not only reduces the viability of their particular business, undermining the future worth of their investment, but also threatens the long-term existence of the tourist industry. The activities of SPC are also seen as an unthinking erosion of fish resources and their ability to replenish. Outfitters on waterways now subject to SPC control complain of poor water management, of water levels several metres below those of a few years ago. The management of water levels is seen as being carried out without regard for other users of the waterways. Operators pointed out that docks are being left far above any useful level, water fluctuations result in docks which cannot be used, excessive weed growth results and there is the ever present fear of winterkill. All operators on controlled waterways expressed concern over the results of future damming.

When discussing these conflicts of use, the common theme was that outfitters felt that government had no concern for the investment they had made and the income which was generated for the province through outfitting services. This lack of concern had been shown too often in the siting of government facilities and access roads, in the issuing of licences to promote cutthroat competition, the arbitrary allocation of water and above all in the lack of enforcement of existing regulations which leaves open to abuse the fragile resources on which the industry depends.

All outfitters said that allocation of the resource base should be re-examined. They felt the level of investment which is now necessary for their industry cannot be carried out in an atmosphere of uncertainty, and that their contribution to the economic activity of the province should be recognized through a more rational and consistent allocation structure.

Outfitters did not ask for exclusive rights to their area of operation, however, they want their contribution to be recognized by security of access to those resources which are tacitly allocated to them by the registration of a lease. Those who are most in conflict with commercial fishing suggested a variety of new allocation mechanisms. Thirty percent of the outfitters suggested zoning of lakes, while 50% suggested that the seasons for commercial fishing be changed so that there is a hiatus during the prime montns of angling. Where there is intensive resource use exploitation by logging and mining companies, the operators suggest that steps be taken to involve the affected operators in the planning of access routes to minimize the damage to prime and sensitive hunting and fishing areas.

General policy concerns: Outfitters were concerned with two major issues, native hunting and land tenure. A concern for unrestricted native hunting and fishing was noted, similar to views in other regions. Land tenure was mentioned by nearly all outfitters. Some thought tenure would only work if the use of the resource was also guaranteed but all agreed that tenure through purchase of long-term lease was important to the long-term viability of the industry. Several were in the position of having to re-mortgage their family residences because the nature of their tenure eliminated all conventional sources of financing for their operation. There was concern on the part of many outfitters that the poor prospects of financing reduced the ability of the industry to change with changing tourism patterns and so increased the instability of the industry.

Creighton area

Resource quantity and quality: The assessment of the quality and quantity of the resource base varied greatly among the outfitters interviewed. Fifty-five percent of those interviewed said that, with qualifications, the quantity of fish was sufficient to satisfy their clients, only 15% gave an unqualified positive response and even in those cases, there was concern for the future. The other outfitters said the quantity of fish was becoming less than adequate or that the size and type of fish was failing to meet their client's expectations. Less than 10% felt the supply of large animals was adequate to sustain hunting at its present level. Only 15% of the lodges offer hunting, although many more were involved just a few years ago.

Resource management: Several of the operators surveyed felt biological surveys were necessary because, in their opinion, government knew little about the resource it allocated. Over half the operators felt some stocking program should be developed, especially in the more southerly lakes which are used increasingly by family vacationers and day use anglers.

There are several types of resource use conflict. In the north the conflict is principally between commercial and sport fishing while in the mid-zone it is between outfitters and locals, new resource users and other resource based industries. In the southern bound of this region there is increasing conflict between differing recreational uses. The perceptions of the cause of these conflicts are remarkably similar. They are rooted in the perceived waste of resources, abuse of the resources and lack of comprehension of the importance of tourism and outfitting as an economic base.

Outfitters surveyed felt there was minimal enforcement of existing regulations and that there was considerable waste of fish resources by commercial fishermen. Operators were concerned that continued high levels of commercial fishing will undermine the sustaining capacity of the resource, and thereby destroy its viability. They generally agreed that much of the problem comes from a lack of enforcement and that firm control should be taken of the regulations in order to reduce abuse. Zoning for different uses was also seen as a way of easing resource use conflicts.

In the mid-belt, the conflicts are between operators and local residents, new resource users and, most particularly, SPC. The conflict between outfitters and local residents again lies in the abuse of the resource. Operators point to the widespread use of air-boats which allow deeper penetration of previously inaccessible wildlife and game bird areas. As one operator pointed out, "one hunter took 20 or 30 birds, most of which were given to friends, hunted meat is seen as cheap food". There is concern that roads required by prospecting companies will provide further access for hunters and lead to a general deterioration of hunting in the area.

Those outfitters on controlled waterways generally felt that little had been done to preserve their livelihood. Water levels were allowed to change erratically leaving costly docks high and dry, causing severe winter kills of plants and fish, encouraging willow growth into waterways, and creating dangers in previously safe areas for fishing and hunting, especially in those areas where game birds are hunted. All outfitters in such areas were concerned about future expansion of water control and pointed to the severe lowering of levels which had already been experienced. Operators felt that the department should have offered much more support and represented their interests.

Furthermore, those surveyed were concerned with the lack of coordination between the regional office and the central office in Regina. Forty percent indicated they had taken various investment positions in their business after discussions with and assurances from regional office personnel only to find that the information given was inaccurate and the assurances had no validity. In all cases the outfitters had lost money because they had taken action on what they assumed was accurate information. In the industry's view, the credibility of the department diminishes.

In the southern band of this region there is growing pressure on the resource from general

vacationers and day use recreation activity. Again, the outfitters see better enforcement as the key. In their opinion, it is an abuse to see people taking full limits on all the children in the party, even babes in arms, people hunting for meat, not sport, and destructive fishing where people kill unwanted species and throw them away. The outfitters also view the indiscriminate licensing of new operators or the "blind-eye" which is turned to non-licensed operators as indicating the depth of the lack of government's understanding of the industry. Licensed outfitters pointed out again and again that they had a substantial stake in the future well-being of the resource and were doing whatever they could to preserve it, through education, through promotion of such practices as barbless hooks and through efforts to minimize pollution, but that their efforts would be negated if adequate enforcement was not provided.

Operators felt that a better allocation between lodge guests and casual day use should be made, or that better enforcement would reduce these problems to manageable proportions. There was no intention of wishing curtailment of the number of general vacationers, but rather that they follow the same rules as higher paying lodge guests. Outfitters desire an allocation policy which recognizes the full extent of the importance of the industry to the economy of Saskatchewan.

Several operators felt the lack of coordination between the various branches of the department had led to policies which undermined recreation values. Clear-cutting operations destroyed the beauty of an area just as an operator had started increasing his non-fishing clientele, and steep slope cutting increased erosion and sedimentation which in turn resulted in weed growth and poor water conditions. Operators felt that policies are developed on a piecemeal basis without regard for the local situation and certainly without local consultation and without regard for the longer term efferts.

Furthermore, those surveyed were concerned with the lack of coordination between the regional office and the central office in Regina. Forty percent indicated they had taken various investment positions in their business after discussions with and assurances from regional office personnel only to find that the information given was inaccurate and the assurances had no validity. In all cases the outfitters had lost money because they had taken action on what they assumed was accurate information.

Those in areas where resource extraction activities are increasing felt that discussion of means to minimize the negative effects of access development, especially in areas close to established camps, would reduce some of the more major problems. The most pressing concern was the continued practice of large area clear cutting, especially in erosing prone areas and was viewed as an area of conflicting policy for the government. Again, there was no pressure to stop these activities but rather a call for recognition of the importance of the outfitting industry and their needs for environmentally sound practices by the extractive industries if outfitters are to continue to contribute to Saskatchewan's economy.

General policy concerns: The major issues are: native hunting rights, land tenure and industry expansion, and pollution control. The concern over native hunting rights, as was expressed in other regions, is tied to the perception that hunting is no longer a valid way for native people to meet their essential dietary requirements.

Land tenure is generally seen as a key to the industry's instability and its ability to meet the challenges of the changing tourist environment. All tenant operators said that they would like to purchase their land, but many were concerned that the purchase of their land would given them little protection and the quality of recreation in the region would continue to deteriorate. They feel this way because of the present system of offering leases to competitors in close proximity to existing operations with no "first option" to the current operator, and government's practice of ignoring illegal tourist operators.

The final concern was pollution of the water system. Increasing recreational pressure, more motorboats, skidoos and off-road vehicles, more cottagers, more campgrounds, all increase the probability of pollution destroying the fragile habitats of fish and wildlife. Fifty percent expressed concern about pollution, especially in the more shallow lakes and waterways. Concern ranged from the increasing use of phosphate detergents in lakeside laundry facilities and homes to the oil slicks of motorboats and the damage and noise of off-road vehicles in the winter. In those areas where there is mining, outfitters were concerned about potential pollution from tailings ponds and general runoff. All expressed concern over the fragility of the environment.

South of Northern Administration District

Resource quality and quantity: Only 25% of the outfitters felt their fish stocks were adequate and 75% of those said that both the quantity and the quality of the resource was declining. The balance of the outfitters were very concerned that without a substantial stocking program their lakes would be fished out. In 90% of the areas normally hunted, there is a feeling that large animal populations have been seriously depleted, while 30% also noted that a great many females seen were dry. The expectation is that without controls and adequate fish stocking programs both the fish and big game resources will be depleted beyond the point of recovery and the outfitting business will be finished.

Resource management: Outfitters generally called for major stocking programs. It was felt that very little attention was given the resource and those who made their livelihood from it.

The operators saw two major problems with the resource management program. First and foremost, all felt that adequate regulatory enforcement was not taking place. The second problem was the universal application of policies and regulations. Many expressed the view that such broad, regional management would be effective if the resources and the pressures on them were similar throughout the region, however, this is not the case. Although there is heavy recreational use over the whole region, some areas, primarily those near larger urban centres, are subject to more intense use. Over time both fish and large animal stocks become rapidly depleted and yet operators point out that there is no special consideration given to the specific needs and difficulties of these areas by discrete zoning.

In an area where there are many different forms of recreation, many of them overlapping in use of a particular resource and with many activities taking place year round, the majority said little has been done to approach these management issues. The lack of appropriate policy strategies has led to increasingly dangerous use levels and more rapid deterioration of the resource. Outfitters generally argued that the government has contributed to these pressures through its campground programs which have steadily increased the number of campsites in areas where there was already considerable use. The situation is further aggravated by the policy of licensing outfitters in what appears to be an indiscriminate manner, with little regard for existing operations in the area, the skills of the operator or the capability of the resource. Where the government's own services were provided, most outfitters near those services pointed out that these facilities were pooly run and contributed to the abuse and deterioration of the resource.

The primary conflict which outfitters perceive is between themselves and other recreation providers and users. The conflicts arise from the pressures of economic necessity, the changing patterns of recreation ownership within the province and changing types of recreation.

Economic reality and the financial needs of the operators for continuous improvement and diversification of their facilities leads to a cycle of expanded services which might be justified by more guests, which in turn leads to intensive resource use, then lower daily rates as resources are depleted, then further diversification and expansion to match financial needs. The cycle continues and is intensified and exacerbated if other operators are licenced in close proximity.

Most outfitters in this region are on lakes where there are private cottages. They feel that cottagers look upon the lake as their private preserve, taking their limit of fish for canning and running their motorboats for water skiing all over the lake. Cottagers frequently resent the expansion of outfitting and resort activities and block the modernization of capital infrastructure such as roads and sewers which would make the area more accessible for resort visitors and guard against pollution.

In those areas where there is heavy hunting, outfitters pointed to the licensing of inexperienced operators, some of whom have little idea of skilled hunting. The problem is particularly acute where bears are hunted and huge quantities of food are hauled into the bush to encourage the bears to stay in the area. Bear hunting in fact seems to create the largest problems. Outfitters point out that while "garbage" bears may be a serious problem, visitors often like to take children to the dumps to see the bears only to see "hunters" slaughter them. Outfitters were generally concerned that such abuses will lead to serious depletion of the bear population and end all sport hunting of them in the province. Other evidence of overhunting which they pointed to was the growing number of dry moose cows, the smaller herds of deer and the dwindling levels of all animal activity. Those operators who still trap as part of their economic base felt that unrestricted winter use of woodlands with off-road vehicles is contributing to the decline of wildlife at a significant rate.

Outfitters presented no consensus of remedies to the problems of allocation. Several operators, 50%, on lakes where there is a wide variety of activities said that some controls on power boat usage must be instituted for safety and environmental reasons. Without these controls they see a growing number of accidents and further damage to the lakes. The reaction of operators depends very much on whether they still consider themselves an outfitter or whether they consider themselves as primarily a resort owner with hunting and fishing as one of the many activities offered.

In areas where hunting is extremely heavy, 90% of the outfitters interviewed called for zone by zone regulation, and a decrease in the number of hunting permits. In zones where poor practices existed, an examination of the practices of some operators was seen as being an important adjunct to any resource policy. As one operator said, "The hunting pressures here are so great there are arguments over whose bait brought in the bear. One of these days someone won't stop with arguing and then there'll be a real tragedy".

In areas where treaty Indians hunted there was a consensus that all hunters should have the same licensing requirements. Indian hunting practices were generally deplored especially as such hunting is viewed as a means to cheap meat rather than necessary dietary supplements.

Outfitters felt that most of the problems stem from uneven enforcement of regulations by too few conservation officers in areas where tourism is expanding rapidly. Where outfitters were within easy reach of regional headquarters, enforcement was considered good or too heavy, in more remote areas officers were seldom seen. Outfitters in remote areas felt this left them with two choices, they could act to enforce the rules and create a potential for trouble or they could ignore the problem and live with the consequent damage to their livelihood.

General policy concerns: Over 40% pointed to the shortage of department personnel during the summer. "They let them take their holidays during our busiest season." "If you need extra licences, tough, they're closed or gone." There's never anyone there when you need them." Outfitters interpret this as evidence that the department views the role of the industry as unimportant to the economy of the region. "They're more interested in checking my freezer than stopping someone come off the lake back to the government campground with three times their limit."

Those outfitters in especially heavily used areas felt that officers at the regional offices were "nothing but a bunch of kids who know a little about hunting and fishing" and "they have no administration skills, they don't understand the tourist industry". As more areas come under intensive pressure, it is conceivable that these attitudes will become more prevalent and more firmly entrenched. It is human nature to remember the poor service, the rude official.

Where operators are on managed water systems they complained of water level management which did not recognize their needs. The main complaint is low winter levels which leave lakes and rivers vulnerable to winterkill. Again, the feeling is these actions are undertaken without regard for the importance of the outfitting industry.

ECONOMIC POLICY ISSUES

POLICY FRAMEWORK

Economic policy should ensure that the labour, capital and natural resources engaged in resource use make their greatest contribution to the economic and social welfare of the province, subject to the requirement the natural resources are conserved. This is an economic efficiency objective which requires that the factors of production - the labour, capital and natural resources - are allocated to that use or industrial sector where they are most valuable.

The analysis presented above suggested that, given the share for labour, many outfitting operations were not providing an economic return commensurate with their ongoing capital investment requirements. Furthermore, there was no evidence of resource rents being earned by the general public as resource owner (in the form of resource revenues from licence sales in excess of management costs) or by the industry (in the form of a "super profit" or return in profits, wages or rents in excess of what would be required, under normal circumstances, to call forth the required supply of such factors of production). Consequently, we concluded that desirable economic goals were not being achieved. Given an interest in seeing the outfitting industry retain its role as an important resource sector, this raised the issue as to which policy initiatives are best suited to achieve better economic performance.

Unfortunately, the survey analysis provided neither a ready explanation of financial performance nor a simple formula for a turn-around in financial fortunes of the industry. First, as has been noted, there are major not marginal adjustments needed in industry revenues (demand for services),cost of providing services (production efficiency) and capital structure (overcapitalization) to achieve some semblance of financial and economic viability. These adjustments are considered to be greater than what could be accounted for by a more favourable economic climate than existed in 1981.

Second, the industry was characterized by very diverse operations. The analysis has shown there are major differences in the resource base used, the accessibility of operations, services provided and clientele served. These differences pointed to the need for a segmentation of policy initiatives to deal with industry problems.

Finally, within each of the three major categories of operation (northern remote-access, northern road-access and southern road-access) the comparative financial analysis suggested such varied interactions between the components of revenue and expense that no general relationships were inferred between profit and operating practices. It was concluded that no ready, simple solution to industry problems should be expected.

Similar limitations must be acknowledged for the attitudinal survey. This aspect of the survey, which documented the views of outfitters with respect to resource management issues, indicated a widespread perception of resource use conflict. The qualitative nature of the opinion survey, while not suited to rigorous evaluation, did highlight the degree to which outfitters are concerned with resource management issues and the inevitable conflicts among users when there is open-access to public resources.

Aware of the limitations of the survey data, we next examined some economic principles of resource management, outlined below, which provided another perspective from which industry performance could be evaluated. Our assessment of policy initiatives reflected our weighing of the survey data in light of these resource management principles.

Economic and Market Principles

The relationship between recreation quality, demand and value is the one concept central to our evaluation. We examined the prospects for the maintenance of recreation quality in an open-access system and concluded the two concepts are in conflict. Consequently, we examined some approaches to the preservation of recreation quality which entail a departure from the open-access tradition.

Recreation sites throughout Western and Northern Canada compete with each other not only in terms of cost, but also, if not principally, in terms of the quality of recreation opportunity they offer. Thus, everything else equal, more distant recreation sites must be of sufficiently high quality to compensate for the extra travel and time costs relative to other more

accessible sites. If this is not the case, the closer site retains a comparative advantage by virtue of its location and becomes the preferred recreation opportunity.

While there are a variety of perceptions of what constitutes quality, there are some obvious considerations. In a sport fishing context, the influence of gamefish catch rates, the size of individual fish, or the uniqueness and diversity of species are quality attributes which readily come to mind. No doubt, the natural or scenic beauty of fishing sites, freedom from crowding and the so-called "wilderness setting" may also be attributes of high quality recreation opportunity. For the outfitting industry, the quality of accommodation and personal services are important considerations.

The role of fishing quality on the demand and value of recreation opportunity is of particular interest, since fishery managers have the ability to influence fishing quality. How fishery management choices can influence demand requires an appreciation of both the biology and the economics of sport fishing. Biology indicates the relationship between catch and fishing effort, while economics indicates how such factors as the number of fish harvested or the size of individual fish can affect demand and value.

There is a relationship between catch and angling effort such that total sustainable harvest increases with fishing effort until a maximum is reached, but declines as effort increases beyond that level. The average sustainable yield, which measures the average catch per angler day, is one important quality variable for the individual angler. The greater the amount of fishing effort, the lower the catch per angler day. Stated otherwise, the greater the amount of fishing effort, the lower the quality of the recreation experience for each participant. There is a similar inverse relationship between the amount of fishing effort and the size of individual fish harvested, an expansion of effort resulting in more, smaller fish being harvested.

These biological relationships have an important economic consequence. Attributes of the recreation opportunity, such as game fish catch rates, influence the demand for the fishery such that the higher the quality, the higher the value of the fishery. Because of the yield-effort relationships in the fishery, as fishing effort expands the quality declines, exerting a negative effect on the demand and value of the recreation opportunity to each participant. Thus, fishery managers exert an important influence on recreationists and outfitters by their decisions on the levels of allowable effort.

Anderson (1980b) has developed an economic model of sport fishing which describes the processes outlined above. In effect, the uncontrolled expansion of angling effort can diminish the quality and hence economic value of a fishery. This process is very much analogous to the open-access model of commercial fishing (Gordon 1953) where it has been demonstrated that in the absence of regulation, economic values will be lower than need be, because too much labour and capital are engaged in resource use, and because the economic rent which should accrue to the resource is dissipated in the expansion of industry operations. The consequences of open-access management have been witnessed in important commercial fisheries throughout the world (Christy and Scott 1965; Pearse 1972; Copes 1977). We do not doubt, habitat degradation aside, this process has already occurred with many of Saskatchewan's accessible sport fishing sites.

As noted above, economists have described the consequences of open-access management systems for some time. A natural evolution of this analysis was discussion of alternatives to correct for the "evils" of common property. Two streams of thought emerged (Scott 1979), the first introducing the idea of some form of property or quasi-property rights in the catch, the second the idea of using taxes or subsidies to correct for the external effects of common property systems. Regardless of which of these alternatives were considered preferable, there also emerged an economic consensus that many, existing ad hoc fisheries restrictions (of gear, of open seasons, etc.) were more inefficient than any of property rights, subsidies, or licence fees (Scott 1979; Anderson 1980a; Clarke 1980).

POLICY ALTERNATIVES

To summarize our review, we suggest the challenge for outfitters is clear - to organize their production, marketing and investment activity with the greatest efficiency possible. In planning its operations the industry must be fully aware of the regulatory framework and the implications of regulation on industry performance. As economic development has progressed northwards, the role and opportunities for the outfitting industry have been irreversibly altered. In planning for the future, outfitters must consider the potential for such change in all respects of their operations.

Our analysis of the public sector role has focused on the working and expected performance of the existing resource management system, which is a varient of an open-access management regime. For some segments of the industry, we concluded that decisions on how best to regulate and control access to the fish resource are most critical. Alternatives to the open-access management mode are described, each of which seeks to bring controls to the total amount of fishing pressure. The effects of decisions on access control can be so far-reaching that, in the absence of some measures of control, other policy measures may prove to be insufficient. Therefore, we stress the need to evaluate other policy initiatives in light of the management mode which will prevail.

Private Sector Issues

Necessarily, our analysis distinguished between the roles of the private and public sectors in contributing to the economic performance of the lodge industry. Given the market orientation of the provincial economy, the role for

outfitters is clear. Private firms have the opportunity, within the constraints of the regulatory framework, to organize their marketing, production and investment operations for economic gain. Failure to achieve a desirable balance between revenues and costs leads to marginal returns to investments and, in the extreme, business failure. As appropriate in a market economy, outfitters bear the consequences of their entrepreneurial decisions.

While our analysis of industry operations did not provide a simple formula for financial success, the need for improved efficiency of operations was evident. While such analysis is beyond the scope of our data, we also suggest it is well beyond our terms of reference, being an issue which has to be evaluated by each firm as part of its ongoing planning and operational decisions. Although we have no prescription for how individual firms should effect desired change, we emphasize the need to consider the changing conditions which will influence the effectiveness of alternatives. Most important is the need to consider the potential impacts of the process of economic development on outfitting operations. Our profile of the industry indicated a gradient of operations, from the well developed south to the remote north. Over time, as development proceeds northward, many of the regional concerns of outfitters in the more accessible areas will likely be of concern to a greater number of outfitters. Consequently, we emphasize the need to anticipate and respond to changing operating conditions.

For parts of the industry, development has already significantly altered their marketing opportunities, as was reflected in the differing revenue structures for each category of operation. In turn, these changed operating conditions suggest the need, as reinvestment requirements arise, for an assessment of the productivity, nature and level of their investments. For example, investments in bed capacity well suited to a wilderness fishing camp may prove inadequate for the accommodation requirements of the general vacation market. Even more so, where the emphasis has shifted from package plan sales to the provision of retail services, there may no longer be a rationale for investment in accommodation services.

Public Sector Issues

With respect to the public sector, our emphasis is on the effect of the regulatory system and resource management modes on industry performance. We add the policy alternative of controlling fishing effort to the initiatives presently being discussed. These include the need for market analysis of development opportunities, the use of resource enhancement, better enforcement of regulations, and land tenure to provide desired stability to the industry.

Access Control

The idea of controlling access to resources used by the outfitting industry requires careful evaluation. The principal benefit such an approach would offer is that, in effect, it would be a means of preserving certain fishing sites in the province for high quality recreation opportunity. The preservation of quality, in a system where recreation opportunity may be viewed as generally variable if not declining, would make lodge-access fishing more attractive. This measure would enhance the market prospects for outfitters, thereby improving their revenue generating capability.

The idea of marketing outfitting operations as high quality recreation sites, of course, requires that the existing industry be situated where, with some form of control on access, this is still feasible. The prospects for this approach are most evident for remote northern operations, but there are no doubt road-accessible northern operations where the concept warrants consideration. Given the profile which emerged of remaining operations, particularly the more accessible southern operations, in the absence of a concerted effort to enhance, rehabilitate and limit access to the fishery it would appear the opportunity for fruitful application of this concept has since passed. These outfitting operations have made the adjustment to marketing such retail services as groceries and fuel sales to general vacation traffic rather than package plan access to high quality resource based tourism.

The present approach to regulation of the outfitting industry incorporates some of the ideas essential to the preservation of fishing quality, seeking to ensure that the maximum harvesting rate of the industry does not exceed the sustainable yields available for their use. This is achieved by regulation of bed capacity which, given assumptions of normal operating periods, rotation patterns of guests and harvests per angler, places limitations on lodge fishing effort and harvests. This system, in combination with such resource management initiatives of the lodges as encouraging the use of barbless hooks, camp restrictions on the number of take home fish and on the size of fish to be used for shore lunches, has no doubt worked to preserve quality and control the total amount of fishing effort. But the indirect nature of the controls and the need to make several strong assumptions of normal industry operations are clearly limitations.

Unfortunately, there also appear to be increasing situations where there are rival, uncontrolled levels of fishing effort from itinerant anglers and outfitters competing with each other. In these situations, the effectiveness of the aforementioned controls are questionable. This is especially true where development has facilitated access to previously remote areas. The open-access model of the sport fishery suggests the prospect of diminished fishing quality as a consequence of the uncontrolled expansion of fishing effort. In such circumstances, given a lower quality recreation opportunity, the competitive position of the lodge industry suffers. In some parts of the province, particularly the south and road-access north, this phenomenon has already occurred with the resulting transition of the industry from provider of access to high quality recreation opportunity to provider of a variety of retail services to itinerant recreationists.

For the concept of access control to be applied, it would be necessary to develop a more direct means of controlling the total amount of fishing effort applied to any given body of water. For the outfitting industry, this might be achieved by assigning a quota for each of the lakes and species fished by its guests. Within the overall quota, the lodge might be given the flexibility to plan the number of guests, the quality of fishing offered each, and the bag limits which lodge guests might be entitled to. Because lodges would have some discretion in the use of their quota, the economics of their resource utilization may improve. This measure, which would provide an explicit allocation of fish for lodge-access fishing, would also alleviate some of the risk and uncertainty which characterizes the industry because of their ambiguous rights to resource use.

An alternative, or really a variation to the use of quotas, would be the development of leased fishing rights. Such a system would provide an allocation of land and fish resources for lodge-access fishing, with the terms and conditions of a lease identifying the lakes or areas of a lake available for use, the species, quotas, rental price and duration of a lease.

Within the general framework of a lease, it would be possible to consider various terms and conditions which could supplement the management initiatives of the province. For example, if a goal of management were that the industry provide a direct economic rent, such a pricing arrangement could be specified in the lease. Similarly, if there was an interest in monitoring the fishing effort and harvests of outfitters' clientele, it would be possible to specify reporting requirements as a condition of operation.

For many economists, the pricing of fishing rights is viewed as the most direct and effective means of regulating access to the fish resource. A pricing system is a method of rationing scarce resources to those who value them most highly, of providing discipline to guide investment and allocation decisions, of providing a means of recovering the costs of management from those who use the resource, as well as providing a direct payment or return to the owners of the resource.

A properly designed pricing system would differentiate markets and prices for different quality fishing areas. The management of sport fishing in Quebec's Parks and Reserves is a good example of how a pricing system can be used to ration sport fishing of differing quality. Prices range from $2 to $250 per day for residents and from $15 to $290 per day for non-residents, depending on the quality of the fishing site (Department of Fisheries and Oceans 1983).

The economic merits of these approaches, in light of the economic theory of regulation of common property resources (Moloney and Pearse 1979), appears favourable. In fact, the first two are a part of the property rights approach to economic regulation, while the latter reflects the taxation-subsidy approach to regulation. Furthermore, there are sufficient precedents with other public resources - forests, mineral and petroleum resources - that in principle such a concept should not be troublesome. However, in practice any explicit allocation which may exclude interested participants is recognized to entail such a marked departure from the open-access tradition as to require careful consideration. Consequently, we suggest the need for further analysis of the alternatives, with particular emphasis on their implications for the province's resource management programs.

Aspects of the alternatives suggested could be examined through a review of their potential advantages and disadvantages. Pending the results of that review, the next logical step would be to consider the feasibility of pilot projects which provide explicit resource allocations for outfitters. Monitoring the workings of these pilot projects would provide an understanding of their potential for larger scale operations.

Anderson (1980a), in an evaluation of regulatory systems for commercial fishing, identified four considerations which must be dealt with; management operations, socio-economic effects, biological effectiveness and economic efficiency. Among other factors, he noted the following considerations which might be applied to the methods of access control discussed in this study;

1. it is necessary to assess the need for, and compatibility with, other types of regulations;
2. it is necessary to assess how conflicts in use could be resolved with the regulatory system proposed;
3. it is necessary to assess to what extent the scheme will promote economic efficiency in resource use;
4. it is necessary to assess whether or not the regulatory system will minimize research and regulation costs.

No doubt, there are additional concerns specific to the province's situation which warrant consideration. Perhaps the most problematic aspect of the idea of access control to preserve the quality of lodge-access fishing, is the impact of the proposal on other recreational users. For either of the approaches outlined above to be effective, it would be necessary to have a control on the total amount of fishing effort from all users. If a quota were provided for lodges, there would in effect be controls (of varying efficiency) over two sectors - the commercial fishery and the lodge-access fishery. What would also be required for this concept to work is some means of controlling an expanding level of itinerant fishing activity. While there are isolated examples of controls being placed on non-resident itinerant activity (Molson Lake in Manitoba), there are, to our understanding, very few Canadian examples which entail a control on resident's right of access to sport fish opportunities.

Thus, any attempt to preserve high quality fishing opportunity in the lodge-access industry

is likely to be met with vigorous opposition by resident anglers who perceive the loss of their right of open-access to sport fishing throughout the province. Whether it is desirable to trade the tourism potential of the lodge industry for the benefits of resident sport fishing raises a difficult, but pertinent issue for Saskatchewan's resource managers. One means of accommodating the right of access for residents, albeit on a restricted basis, would be to reserve some share of allowable harvests for itinerant resident angling activity. These fishing rights could be rationed to anglers by lottery, direct pricing or some combination of the two.

A second area of concern is the need to integrate the approaches to regulation of the lodge industry with the approaches to regulation of other sectors. Thus, for example, any move to the establishment of quasi-property rights for lodges would have to be considered for the commercial fishery as well. For the commercial fishery, individual transferable quotas are thought to be an effective means of achieving the economic goals of resource management (Moloney and Pearse 1979). In effect, through the use of such regulatory mechanisms, there may be an opportunity to alleviate rather than accentuate intra-fishery conflicts. This view has already gained some acceptance, as evidenced by recent decisions in Alberta and Ontario to implement a system of individual transferable quotas for commercial fishermen.

Earlier, the assertion was made that several policy initiatives, regardless of their potential, would prove to be necessary but insufficient if no initiatives were taken to control access to Saskatchewan's fish resources. This observation warrants comment.

Resource Enhancement

Resource enhancement is seen as a means of preserving, rehabilitating and enhancing natural stocks of Saskatchewan game fishes. While the program's prospects in part hinge on the biological and technical feasibility, its economic prospects very much depend on the need to restrain the expansion of investments in fishing capacity and the growth in fishing effort.

First, one has to be mindful that it is uncontrolled fishing effort which, in many cases, is the principal cause of the decline in natural stocks. Although the prospects of fishing down enhancement stocks are as real as for natural stocks, the failure of earlier management incentives creates an opportunity. For the commercial fishery, because there is already too much labour and capital attracted to the fishery, there is the possibility of harvesting additional stocks with no extra investment in capacity. However, in order for these benefits to be achieved there has to be a restriction in the expansion of fishing capacity and effort or the potential benefits will be dissipated. The Commission on Pacific Fisheries Policy (1982), in its evaluation of the Salmonid Enhancement Program concluded:

> "a licensing and fleet development policy that will reverse past trends and reconcile fishing capacity with the available resources, desirable in itself, is also a condition for the success of enhancement efforts."

While this analysis has been developed for the commercial fisheries, there is a similar note of caution for sport fishing enhancement projects. Resource enhancement provides a means of improving the quality of sport fishing, by effecting improvements in game fish catch rates. In an open-access fishery, however, the possibility of dissipating the quality improvement over added angler-days of activity may quickly lead to a depletion of enhancement stocks and enhancement benefits. The management choice is to have limitations on angling effort and improve the quality or to allow for expansion of effort, hoping that quality is maintained if not degraded. Which approach is considered preferable really hinges on whether the value of the quality improvement to existing anglers is greater than the value of additional angler-days of low quality. Given our suggested emphasis on the role of high quality recreation in maintaining demand for outfitters' services, it should be no surprise we prefer a strategy of quality improvement in those circumstances where the program is targetted to assist the outfitting industry.

This line of reasoning has led to the general consensus that, in the absence of measures to control fishing effort, there are virtually no prospects for resource enhancement to provide long term economic benefit (Canada Department of Fisheries and Oceans 1978; Commission on Pacific Fisheries Policy 1982).

Enforcement of Regulations

Better enforcement of regulations was viewed by many outfitters as a necessary move to eliminate much of the conflict between user groups. While we acknowledge that effective enforcement is necessary if regulations are to be meaningful, we are also mindful of the consensus that has emerged as to the economic consequences of many ad hoc fisheries regulations.

The alternatives referred to above are only a few of several means of regulating access, to be compared with such traditional regulatory measures as closed seasons, gear restrictions and aggregate quotas for the fishery, all of which are intended to restrict aggregate effort. While traditional measures may satisfy the biological objectives of management, they may also have profound effects on the economic performance of the fishing industry since they are thought to lead, directly or indirectly, to an increase in the aggregate costs of harvesting fish, thereby eliminating the potential economic benefits of regulation (Anderson 1980a). Exclusive rights management schemes also can satisfy biological management objectives. At the same time, however, they are thought to be economically efficient since they provide a means of restricting inputs in a fishery by providing an incentive to minimize costs rather than maximizing the share of harvest, which leads to increased costs.

In light of the concerns with traditional regulatory measures, we have serious reservations with the perception of outfitters that better enforcement of existing regulations would serve as a basic move to eliminate much of the conflict between user groups. Even with a perfect enforcement scheme, since traditional regulatory measures have undesirable effects, the fishery is bound to be inefficient. The combined effect of industry inefficiency and high enforcement costs may fully absorb the potential value of the resource to the province.

Furthermore, in a time of economic restraint we are doubtful that the financial resources for additional enforcement are readily available. Nor do we anticipate that resource users are willing to pay for the added costs of regulatory enforcement.

Market Analysis

The relevance of market research for an industry characterized by varied marketing efficiency (as measured by revenues in the comparative financial analysis) and generally poor capacity utilization should be self evident. Market analysis should help to define the extent and nature of the demand for outfitting operations. In particular, we emphasize the need to gain a better appreciation of the influence of quality attributes on the potential demand for lodge-access tourism.

We also emphasize the need to ensure that outfitters have the ability to match the provision of the services they offer with market opportunities. As noted in our survey data, there are, in some areas at least, sufficient competing pressures that in effect outfitters have little influence on the quality of the recreation experience they market. Thus, while we have no disagreement with the need or role of market analysis, we suggest that unless outfitters have some measure of control over what is being marketed, it will be difficult to assure the potential gains of market research will be achieved.

Land Tenure

Operators surveyed felt the existing lease system contributed to the instability of the industry, largely because of the difficulties in obtaining conventional sources of financing, both for their ongoing operation and in the purchase of outfitting enterprises situated on leased land.

Clearly, land tenure may improve the industry's access to conventional financing. Apart from that, its role in improving industry viability remains unclear. Security of access to land itself is considered less a determinant of industry viability than the ability of the industry to provide access to high quality resource based recreation activity.

We are sympathetic to the view of some outfitters surveyed who expressed concern that amendments to land tenure would offer a solution to industry problems only if measures were also taken to control the number of leases and preserve the quality of the recreation experience. In effect, they have argued as we do, suggesting that an explicit allocation of resources for lodge-access tourism and controls on the total amount of fishing effort are necessary conditions for industry stability.

ECONOMIC CRITERIA

At the outset of this study, a distinction was made between natural resource values and the economic contribution of the industry which facilitates access to the resources. The estimates presented in this study focused on the latter, but not the former. By contrast, many of the outfitters surveyed referred to the higher expenditure for every pound of sport fish harvested than from competing uses, in particular the commercial fisheries. The perception that expenditures per pound provide a meaningful measure of the value of resources in recreational use remains a source of contention, and accordingly, warrants comment.

The income statement analysis indicated outfitters purchased $13 211 000 of goods and services from other firms, expended $2 997 000 on wages and salaries and allocated $3 527 000 as a share for capital. This accounted for the gross income of the industry of $19 735 000. Nothing remained as an explicit payment for the natural resources used by outfitters, so that it is a misconception to suggest expenditures are indicators of resource values.

The value of recreation acitivity to the users, described as the direct economic benefit, is measured by the maximum amount recreationists would be willing to pay for the activity if they had to. In determining the value of recreation to residents, it is necessary to account for the fact that only nominal licence fees are charged for the right to hunt or fish. As a result, residents obtain a benefit which is not fully reflected by payments for licences. This benefit, called consumer surplus, is the relevant, albeit abstract, measure of direct economic benefit. For non-resident activity, the appropriate measure of value is what non-residents actually pay for the right to participate in the activity.

The value of the resources is embedded in the willingness to pay for the activity itself. Resource abundance, as measured by gamefish catch rates or game bird kill per day, is a quality variable which influences the value of the activity. The higher the quality, the higher the economic value of the activity. From the consideration of the influence of resource quality attributes on value, it is possible to estimate the value of the resources themselves. Ultimately, if resource policy is concerned with the value of natural resources, it will be necessary to develop estimates of the primary benefits of recreation activity in the province.

A framework for evaluating the economic benefits of recreation acitivity which integrates economic impact analysis, as conducted in this study, with the primary valuation analysis described above would enable consideration of

the relationship between resource values and industry impacts, while retaining the necessary distinction between industry and resource values.

This planning framework, if carefully developed, should enable evaluation of the primary benefits and costs of resource-based recreation activity. If there is concern with such related objectives as income distribution and employment creation, economic impact analysis can be used. To the extent that trade-offs and conflicts exist among the objectives, it is essential that the analytic framework be capable of estimating the nature and extent of the trade-offs.

Finally, it should be noted there is a strict interpretation to be placed on the economic impact analysis. This analysis can be useful in the evaluation and design of programs intended to stimulate regional development and employment creation, since it presents a regional economy in perspective and facilitates comparison of the magnitude of its major sectors and bonds with other regions. Economic impacts may be equated with regional benefits, depending on alternatives within the region and whether or not the impacts would otherwise occur outside the region. However, as the overall region under study is expanded, the alternative uses of the factors of production increase. These alternative uses are economic costs which have to be considered in the interpretation of economic impact data.

For these reasons, it must be emphasized that careful use must be made of the economic impact data presented in this study. The use of economic impact data as indicative of resource values may be intuitively appealing, but the resulting indicators are wrong and, therefore, misleading.

CONCLUDING NOTE

The Commission on Pacific Fisheries Policy (1982) noted that while those involved in the fisheries recognized major changes were essential and evident, they are apprehensive when particular proposals are advanced. This is so because the fisheries are characterized by conflict among resource users, the emergence of vested interests and a profound inertia which resists change, in spite of agreement that worsening circumstances have made such changes essential.

Regardless of the jurisdiction, change does not come easily in the public management of fisheries. We anticipate there will be some reluctance to acknowledge there are issues for concern in Saskatchewan, let alone to consider changes to the status quo. We suggest this for several reasons. First, the open-access tradition which we have challenged in this study has been essential to the philosophy of the province's fisheries and wildlife management programs for decades. The conflicts in resource use have also emerged over many years. Furthermore, the tradition of open and virtually free access to game and fish resources is viewed by many as a highly valued, inalienable right. In evaluating change, this perception must be addressed. Yet more, our analysis will no doubt be viewed as being inconsistent with current public policy initiatives respecting resource enhancement, industry regulation, marketing analysis and land tenure. Thus, we do not expect the views presented will be readily endorsed.

Given these obstacles, the question arises why we have bothered to articulate issues and describe alternatives which may have such limited prospects for acceptance. Quite simply, it is our conviction that there are feasible alternatives to the status quo which would enhance the performance of both public and private sectors. Hopefully, we will stimulate discussion on what we feel are essential topics for public resource policy.

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Appendix 1

List of Saskatchewan Outfitters

List of Saskatchewan Outfitters

Northern Remote-Access Operations

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Arctic Lodges Ltd.	Reindeer Lake	80	0	Fishing
Charlie's Camps	Namew Lake (Jackfish Bay)	8	0	Fishing & Hunting
Deer Horn Lodge	Attitti Lake	30	2	Fishing & Hunting
Flin Flon Outfitters	Flin Flon***	0	6	Fishing & Hunting
Kingfisher Lodge	Okipwatsikew Lake	15	1	Fishing & Hunting
Niska Hunting & Fishing Camp	Cumberland House***	0	1	Fishing & Hunting
Northern Outfitters	Flin Flon***	0	2	Fishing & Hunting
Pelican Narrows U-Fly-In	Pelican Narrows	36	2	Fishing
Pine Point Lodge	Lake Athapapuskow	21	0	Fishing
Pointer Lake Fishing Camp	Pointer Lake	10	0	Fishing
R.G. Ferguson Ltd.	Flin Flon***	0	6	Fishing
Reindeer Lake Lodge	Reindeer Lake	26	0	Fishing
Reindeer Lake Trout Camp	Reindeer Lake	20	0	Fishing
Slim's Cabins	Churchill River	36	0	Fishing & Hunting
Tate Island Fishing Camp	Reindeer Lake	35	0	Fishing & Hunting
Wilson's Lodge	Reindeer Lake	26	2	Fishing & Hunting
Bear Track Camp	Johnson Lake	4	2	Fishing
Bear Trap Camp	Eulas Lake	8	0	Fishing
Beyond La Ronge Lodge	Churchill River	56	2	Fishing
Birchwood Drinking Falls Lodge	Churchill River	60	1	Fishing
Black Bear Island Lake Fly-In	Black Bear Island Lake	80	0	Fishing & Hunting
Bsh Camps	Deception Lake	8	0	Fishing
Camp Kinisoo	La Ronge (Hunter Bay)	34	1	Fishing & Hunting
Churchill River Leisure Lodge	Nistowiak Falls	10	0	Fishing
Cornhusker Fishing Lodge	La Ronge (Hunter Bay)	30	1	Fishing
Dalyn Fishing Camps	Hunter Bay	35	0	Fishing & Hunting
Deception Lake Lodge	Deception Lake	10	0	Fishing
Five-Star Fly-In Camps	Kenyon Lake	12	1	Fishing
Flatlands Hunting & Fishing Camp	Thompson Lake	12	3	Fishing & Hunting
Foster Lake Lodge	Middle Foster Lake	16	0	Fishing
Greyowl Camp	Oneman Lake	6	0	Fishing

Northern Remote-Access Operations - continued

Name	Base Camp Location	Base Camp Beds	Outposts	Services
High Rock Lodge Ltd.	Highrock Lake	6	0	Fishing
Hunter Narrows Camp	La Ronge (Hunter Narrows)	60	0	Fishing & Hunting
Keefe Lake Camp	Keefe Lake	10	0	Fishing
Keighley's Camp	La Ronge (Hunter Bay)	35	1	Fishing & Hunting
McTavish Lake Lodge	McTavish Lake	10	0	Fishing
Medora Fishing Camps	Sulphide Lake	30	1	Fishing
Misaw Lodge	Misaw Lake	10	0	Fishing
Nagle Lake Lodge	Nagle Lake	16	0	Fishing
Northstar Fly-In Camp	Wapawekka Lodge	16	0	Fishing
Pardoe Lake Lodge	Pardoe Lake	10	0	Fishing
Paull River Wilderness Camp	Paull River	12	0	Fishing & Hunting
Pickerel Bay Cabins	La Ronge (Pickerel Bay)	40	0	Fishing & Hunting
Shadd Lake Cabins	Shadd Lake	35	1	Fishing & Hunting
Skeezik Camp	Campbell Lake	24	0	Fishing
Sportsman's Lodge	McIntosh Lake	56	1	Fishing & Hunting
Sunset Island Lodge	Nemeiben Lake	18	0	Fishing
Tamarack Lodge	McLennan Lake	20	6	Fishing
Twin Lakes Fly-In	Copp Lake	10	1	Fishing
Wallace's Wilderness Camps	Sandy Lake	18	3	Fishing & Hunting
Careen Lake Lodge	Careen Lake	16	1	Fishing
Cree Lake Lodge	Cree Lake	28	0	Fishing
Crystal Lodge	Cree Lake (Ispatinow I.)	10	0	Fishing
Grayling Lodge	Careen Lake	6	0	Fishing
Lloyd Lake Lodge	Lloyd Lake	25	1	Fishing
Mawdsley Lake Lodge	Mawdsley Lake	16	1	Fishing & Hunting
McLeod Trail Ltd.	Ithingo Lake	8	1	Fishing & Hunting
Porter Lake Fly In Fishing Camp	Porter Lake	8	0	Fishing
Sieman's Engeman Camp	Engeman Lake	12	0	Fishing
Sieman's Pipestone Camp	Pipestone Lake	12	0	Fishing
Athabasca Camps Ltd.	Lake Athabasca	20	2	Fishing
Camp Grayling	Black Lake	32	3	Fishing
Cheemo Lodge	Tazin Lake	24	0	Fishing
Cree River Lodge	Hatchet Lake	60	3	Fishing

Northern Remote-Access Operations - continued

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Hatchet Lake Lodge	Hatchet Lake	60	3	Fishing
Morberg's Camps	Black Lake	32	2	Fishing
Scott Lake Camp	Scott Lake	12	0	Fishing
Tazin Lake Lodge	Tazin Lake	30	1	Fishing & Hunting

***No base camp

List of Saskatchewan Outfitters

Northern Road-Access Operations

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Angell's Resort	Amisk Lake	60	1	Fishing & Hunting
Ballantyne Camp	Deschambeault Lake	15	0	Fishing & Hunting
Bay Resort	East Trout Lake	35	0	Fishing & Hunting
Bayview Lodge	Mirond Lake	38	1	Fishing & Hunting
Big Sandy Resort	Big Sandy Lake	39	0	Fishing & Hunting
Bill Cariere's Camp	Cumberland House	14	0	Fishing & Hunting
Caribou Creek Lodge	Upper Fishing Lake	46	0	Fishing & Hunting
Carriere's Camp	Cumberland House	0	2	Fishing & Hunting
Davin Lake Drive-In, Fly-In	Davin Lake	30	0	Fishing
Delta Outfitters	Cumberland House	0	8	Fishing & Hunting
Deschambeault Lake Outfitters	Deschambeault Lake	32	2	Fishing
Goldeye Outfitters	Loon Lake	12	0	Fishing
Great North Lodge	Jan Lake	44	2	Fishing
Hanson Lake Cabins	Hanson Lake (Bertrum Bay)	33	0	Fishing & Hunting
Jan Lake Lodge & Sea Shell Cabins	Jan Lake	130	0	Fishing
Jim's Camps	Mossy River	5	2	Big Game
Johnson River Camp	Johnson River	14	0	Fishing
Katche Kamps	East Trout Lake	16	0	Fishing
Kee Kamps	Kane Lake	24	1	Fishing
Lawrence Bay Lodge	Reindeer Lake	40	0	Fishing & Hunting
Little Bear Lake Resort	Little Bear Lake	55	4	Fishing & Hunting
M & D Cabins	Lower Fishing Lake	25	0	Fishing & Hunting
Martin's Cabins	Jan Lake	85	2	Fishing & Hunting
Mista Nosayew Outfitters	Pelican Narrows	40	1	Fishing & Hunting
Moose Horn Lodge	Little Bear Lake	50	0	Fishing & Hunting
Mosher Lodge	Mosher Lake	56	0	Fishing
Newmart Resort	Mirond Lake	50	0	Fishing & Hunting
Nordic Lodge	Reindeer Lake (South End)	22	0	Fishing & Hunting
Northern Lights Lodge	Deschambeault Lake	28	2	Fishing & Hunting
Pawastick Lodge	Sturgeon-Weir River	10	0	Fishing
Pine Grove Resort	East Trout Lake	36	0	Fishing & Hunting

Northern Road-Access Operations - continued

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Rainbow Lodge	Piprell Lake	35	0	Fishing & Hunting
Russell's Churchill River Camps	Sandy Bay	12	7	Fishing & Hunting
Silence of the North	Mirond Lake	50	0	Fishing
Sturgeon Landing Outfitters	Sturgeon Landing (Namew Lake)	80	0	Fishing & Hunting
T & D Amisk Cabins	Amisk Lake (Denare Beach)	28	1	Fishing & Hunting
Three Lakes Lodge	Jan Lake	50	0	Fishing
Thunderbird Enterprises Ltd.	Pelican Narrows	30	11	Fishing & Hunting
Whiteswan Lodge	Whiteswan Lake	60	0	Fishing & Hunting
Besnard Lake Lodge	Besnard Lake	36	0	Fishing & Hunting
C.W. Jones Outfitters	George Lake	12	4	Fishing & Hunting
Churchill River Canoe Outfitters	Otter Lake (Missinipe)	25	0	Fishing
Cooper's Wadin Bay Outfitters	La Ronge (Wadin Bay)	34	2	Fishing
English Bay Cabins	La Ronge (English Bay)	13	0	Fishing
Lindwood Lodge	Nemeiben Lake	90	1	Fishing & Hunting
Lindy's Cabins	La Ronge (Hunter Bay)	40	0	Fishing
Red's Camps	La Ronge	20	3	Fishing & Hunting
Thompson's Camps	Otter Lake (Missinipe)	120	11	Fishing & Hunting
Weyakwin Hunting & Fishing Camp Ltd.	Weyakwin Lake	54	0	Fishing & Hunting
XYD Hunting & Fishing Camp	La Ronge	18	0	Fishing & Hunting
Canoe Lake (West) Resort	Canoe Lake	15	0	Fishing & Hunting
Clarke Lake Lodge	Clarke Lakes	25	0	Fishing & Hunting
Darsana Lodge	Lac la Plonge	22	0	Fishing & Hunting
Del's Tower Lodge	Dore Lake (Tower Beach)	20	0	Fishing & Hunting
Dore Lake Lodge	Dore Lake	36	0	Fishing & Hunting
Husak's Cabins	Dore Lake	25	0	Fishing
Johnson's Camps	Ile a la Crosse***	0	1	Fishing & Hunting
Keeley Lake Lodge	Keeley Lake	85	0	Fishing & Hunting
Michel Lodge	Dore Lake (Michel Point)	70	0	Fishing & Hunting
North Haven Lodge	Cande Lake (Cole Bay)	60	0	Fishing & Hunting
Poplar Point Resort	Cowan Lake	50	0	Fishing & Hunting
Riverside Service & Cabins	Green Lake	18	0	Fishing & Hunting
Silver Pine Resort	Lac Ile a la Crosse	40	0	Fishing & Hunting
Watson's Lac la Plonge Resort	Lac la Plonge	36	0	Fishing & Hunting

Northern Road-Access Operations - continued

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Wilderness Wings	Meadow Lake	0	6	Fishing & Hunting
D & D Camps	Wollaston Lake	24	3	Fishing
Hopp's Camps	Wollaston Lake	30	3	Fishing & Hunting
Jackson's Lodge	Waterbury Lake	42	2	Fishing
Minor Bay Camp	Wollaston Lake	16	0	Fishing
Wollaston Lake Lodge	Wollaston Lake	54	1	Fishing

***No base camp

Southern Road-Access Operations

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Bain Store & Cabins	Little Fishing Lake	20	0	Fishing
Barrier Beach Resort	Barrier Lake	64	0	Fishing
Bell's Beach	Christopher Lake	18	0	Fishing
Big Island Cove	Lac des Iles	17	0	Fishing
Buckhorn Bay Resort	Fishing Lakes	16	0	Boats, Motors, Camp
Crescent Beach	Meeting Lake	35	0	Fishing
Fishermen's Cove	Greenwater Lake	46	0	Boats, Motors, Camp
Flotten Lake Resort	Flotten Lake	20	0	Fishing
Green Lake Lodge	Green Lake	50	0	Fishing & Hunting
Jacobsen Bay Outfitters	Anglin Lake	24	0	Fishing
Johnson's Resort	Ministikwan Lake	28	0	Fishing & Hunting
Jumbo Beach Resort	Little Jumbo Lake	60	0	Fishing
Kenosee Gardens	Kenosee Lake	108	0	General Vacation
Lac des Iles Resort	Lac des Iles	90	0	Fishing & Hunting
Lac la Peche Camp	Lac la Peche	8	0	Fishing
Lakeside Cabins	Wakaw Lake	10	0	Fishing
Lamplighter Lodge	McBride Lake	24	0	Fishing & Hunting
Longlake Lodge	Last Mountain Lake	66	0	Fishing Gear
M & N Resort	Waterhen Lake	75	0	Fishing
Makwa Lake Resort	Makwa Lake	90	0	Fishing
Maple Grove Resort	Round Lake	52	0	Fishing
Marean Lake Resort	Marean Lake	56	0	Fishing
McPhee Lake Grocery & Cabins	McPhee Lake	55	0	Winter Vacation
Michel's Outfitters	Delaronde Lake	38	0	Fishing
Northern Lights Resort	Emma Lake (McIntosh Pt.)	16	0	Fishing
Pierce Lake Lodge	Pierce Lake (Howe Bay)	50	0	Fishing
Pine Cove Resort	Loon Lake	35	0	Fishing
Shady Bay Beach	Meeting Lake	24	0	Fishing
Silver Bay Cabins & Trailer Park	Lac des Iles	55	0	Fishing

Southern Road-Access Operations - continued

Name	Base Camp Location	Base Camp Beds	Outposts	Services
Silver Top Cabins	Chitek Lake	45	0	Fishing
Simpson's Sportsman Lodge	Squaw Rapids	16	0	Fishing & Hunting
Sunset Bay Resort	Emma Lake (Sunset Bay)	32	0	Fishing
Tawan Cabins	Waterhen Lake	75	0	Fishing & Hunting
Tel-Win Beach	Candle Lake	25	0	Missing
The Dunn Inn	Round Lake	12	0	Fishing
Tobin Lake Resort	Tobin Lake	83	0	Fishing
Turtle Lake Lodge	Turtle Lake	46	0	Fishing
Uncle Tom's Cabins	Chitek Lake	24	0	Missing
Wakaw Lake Lodge	Wakaw Lake	48	0	Fishing
Waterhen Lake Resort	Waterhen Lake (North End)	24	0	Fishing & Hunting
West End Outfitters	Candle Lake	20	0	Fishing
Woodies Cabins	Little Fishing Lake	25	0	

*This list was prepared as of August 4, 1982. It does not include changes in numbers, ownership, or bed capacities which may have occurred subsequent to this date.

Appendix 2

Sample Coverage

Table A2.1 Survey coverage for the economic survey of Saskatchewan outfitters.

Category	Establishments in Population	Establishments in Sample	Sampling Rate
Northern Remote-Access			
≤30 beds	51	17	33%
>30 beds	18	4	22
Subtotal	69	21	30%
Northern Road-Access			
≤30 beds	33	9	27
31-60 beds	29	9	31
>60 beds	7	2	29
Subtotal	69	20	29%
Southern Road-Access			
≤30 beds	19	7	37
>30 beds	23	5	22
Subtotal	42	12	29%
All Facilities	180	53	30%

Appendix 3

Resource Base and Use: Statistical Tables

Table A3.1 Numbers of Lakes in Saskatchewan by size and geological substrate.

Substrate	Very Small	Small	Medium	Large	Very Large	Totals
Precambrian Shield	82 949	233	30	20	9	83 241
Shield Boundary	234	11	2	6	6	258
Sedimentary	10 400	120	18	12	8	10 558
Totals	93 583	364	50	38	23	94 057

Table A3.2 Saskatchewan angling licence sales for the period 1930-31 to 1981-82.

Year	Resident	Non-Resident	Other[a]	Total
1930-31	Transition period - No licences issued			
1931-32	N/A	964	-	964
1932-33	5 454	891	-	6 345
1933-34	3 570	808	-	4 378
1934-35	3 701	988	-	4 689
1935-36	3 015	1 347	-	4 362
1936-37	4 306	1 790	-	6 096
1937-38	5 561	2 177	-	7 738
1938-39	4 651	1 935	-	6 586
1939-40	4 516	1 558	-	6 074
1940-41	5 128	1 413	-	6 541
1941-42	5 670	1 648	-	7 318
1942-43	5 723	1 409	-	7 132
1943-44	6 383	1 364	-	7 747
1944-45	5 878	1 592	-	7 470
1945-46	7 023	1 873	-	8 896
1946-47	11 400	2 900	-	14 300
1947-48	13 575	3 372	-	16 947
1948-49	17 040	4 374	-	21 414
1949-50	26 610	5 030	-	31 640
1950-51	33 336	5 366	-	38 702
1951-52	38 225	6 275	-	44 500
1952-53	50 113	6 615	-	56 728
1953-54	61 384	6 650	-	68 034
1954-55	65 792	6 147	-	71 939
1955-56	78 988	6 658	-	85 646
1956-57	84 889	7 144	-	92 033
1957-58	99 863	7 459	-	107 322
1958-59	97 332	7 557	-	104 889
1959-60	95 360	7 245	-	102 605
1960-61	89 674	7 586	-	97 260
1961-62	87 777	8 846	-	96 623
1962-63	88 802	3 947	5 444	98 193
1963-64	87 729	4 363	7 157	99 249
1964-65	89 609	3 497	7 611	100 717
1965-66	90 590	3 010	7 880	101 480
1966-67	98 853	2 795	8 359	110 007
1967-68	101 719	2 868	7 923	112 510
1968-69	118 154	2 977	9 311	130 442
1969-70	131 764	2 772	9 043	143 579
1970-71	120 082	11 762	920	132 764
1971-72	123 480	14 679	1 203	139 362
1972-73	135 683	15 507	883	152 073
1973-74	138 581	17 616	-	156 197
1974-75	152 222	17 815	-	170 037
1975-76	156 992	20 330	-	177 322
1976-77	175 952	20 577	-	196 529
1977-78	181 769	19 646	-	201 415
1978-79	182 896	19 631	-	202 527
1979-80	178 372	19 413	-	197 785
1980-81	173 539	16 274	9 681	199 494
1981-82	178 361	15 733	11 854	205 948

[a] Other licences have been defined as follows: from 1962-63 to 1969-70 - Non-resident trout; from 1970-71 to 1972-73 - Non-resident three day; from 1980-81 to 1981-82 - One day

Table A3.3 Number of angler-days expended by licensed anglers in Saskatchewan in each month in 1980.

Month	Resident	Non-Resident	Total
January	48 509	1 665	50 174
February	42 417	1 977	44 394
March	46 980	1 166	48 146
April	27 062	850	27 912
May	172 053	22 528	194 581
June	327 838	98 696	426 534
July	505 176	83 479	588 655
August	340 764	50 007	390 771
September	150 343	22 817	173 160
October	51 172	5 924	57 096
November	19 010	2 283	21 293
December	47 052	1 917	48 969
Total	1 778 376	293 309	2 071 685
Annual average number of days per angler	13.3	6.2	11.4

Table A3.4 Weight of fish caught and retained by anglers in Saskatchewan in 1980.

Species	Resident kg	Non-Resident kg	Total kg
Pike	2 014 239	676 467	2 690 706
Perch	327 200	36 076	363 276
Walleye	1 079 802	457 491	1 537 293
Lake Trout	183 958	100 933	284 891
Rainbow Trout	49 514	15 201	64 715
Grayling	2 112	2 578	4 690
Goldeye	13 937	446	14 383
Brook Trout	11 997	634	12 631
All Species	3 682 759	1 289 826	4 972 585

Table A3.5 Expenditures by anglers in Saskatchewan in 1980.

Category	Resident	Non-Resident	Total
Lodging	$ 2 207 838	$ 1 799 162	$ 4 007 000
Campsite Fees	1 137 573	338 689	1 476 262
Food	6 397 456	2 237 190	8 634 646
Travel	8 190 611	2 264 767	10 455 378
Boat Rentals	1 137 818	542 893	1 680 711
Boat Expenses	2 633 563	364 966	2 998 529
Fishing Supplies	3 457 436	658 700	4 116 136
Bait	276 916	86 614	363 530
Guide Services	79 962	242 054	322 016
Fishing Licences	746 735	371 726	1 118 461
Other Expenses	409 819	929 001	1 338 820
Totals	$27 539 132	$14 342 009	$41 881 141

Table A3.6 Commercial landings and landed values in Saskatchewan, 1981-82.

Species	Landings	Initial Lake Values
Whitefish	1 170 807 kg.	$ 854 198
Walleye	713 677	1 785 216
Pike	617 979	296 425
Lake Trout	383 093	294 717
Others[a]	523 422	117 840
Totals	3 408 978[b] kg.	$3 348 396

[a] Others includes ciscoes, carp, suckers, buffalofish

[b] The total only includes fish delivered to the Freshwater Fish Marketing Corporation; an additional 370 607 kg were peddled, caught for bait, and caught under domestic, free Indian and fur farm permits.

Appendix 4

Cost Accounting Model

Cost Accounting Model

Gross Income	Package Plan Revenues + Accommodation Service Revenues + Outfitting Revenues + Retail Service Revenues + Miscellaneous Revenues = Total Gross Income
Cost of Goods Sold (CGS)	Cost of Retail Goods Sold + Direct Labour Expense + Transportation Expense + Property Operation/Maintenance + Energy Costs + Vehicle Expense + Miscellaneous Direct Costs = Total Cost of Goods Sold
Gross Profit	Total Gross Income - Total Cost of Goods Sold = Gross Profit
Selling and Administration (CSA)	Administration and General + Marketing Expense + Indirect Labour Expense + Insurance + Leases/Fees/Taxes + Miscellaneous Indirect Costs = Total Selling and Administration
Share for Capital	Gross Profit - Total Selling and Administration = Share for Capital
Pretax Net Income	Share for Capital - Depreciation Allowance - Long-term Interest Cost - Working Capital Interest Cost = Pretax Net Income
After Tax Net Income	Pretax Net Income - Corporate Taxes = After Tax Net Income

GLOSSARY OF TERMS

TOTAL GROSS INCOME is the sum of revenues from package plans, accommodation services, outfitting services, retail services and miscellaneous source of income.

Package Plan Revenues include all income received for an all inclusive package of services. Package plans vary from establishment to establishment, including one or more of the following services; return transportation from a point of origin to the base camp, lodging, meals, guiding services, boat and motor rental.

Accommodation Service Revenues include all income received from the provision of one or more of the following services, each sold separately; housekeeping cabins, room rentals and campground rentals.

Outfitting Service Revenues include all income received from the provision of one or more of the following services; boat and motor rentals, canoe rentals, guiding services, aircraft charters, outpost camps and licence sales.

Retail Service Revenues include all income received from the provision of one or more of the following services; retail store (grocery) sales, fuel sales, dining room and beverage room services.

Miscellaneous Revenues include all income realized from the provision of various and sundry services not included in the four principal sources of revenue defined above.

COST OF GOODS SOLD is the sum of all expenses incurred in the purchase or manufacture of the goods and services sold during the annual operating period. Cost of goods sold are synonomous with the direct costs of production. Specific items included in this category are noted (CGS).

Cost of Retail Goods Sold (CGS) is the sum of all expenses incurred for retail service transactions for retail store operations, for fuel sales, dining room and beverage room services.

Direct Labour Expense (CGS) is the sum of all wages, salaries and benefits for employees of the establishment engaged in the direct production of the firm's product. The services included as direct labour items are housekeeping/kitchen staff, guides, maintenance workers, store employees, food service employees, general labourers, and miscellaneous direct labour services.

Transportation Expenses (CGS) include all transport costs in moving staff, guests and commodities. Items included in this category are aircraft rentals, aircraft expense, guest transport, staff transport and freight costs.

Property Operation and Maintenance Expenses (CGS) include expenditures on camp supplies, groceries, and fishing supplies which are incurred in the normal operation of the establishment. This category also includes boat and motor repair, building repair and equipment repair expenditures.

Energy Costs (CGS) include expenditures on one or more of camp fuel, propane and utilities.

Vehicle Expenses (CGS) include expenditures on vehicle operation and repair, as well as vehicle rentals.

Miscellaneous Direct Expenses (CGS) include various and sundry direct production costs not included in the 6 principal categories of direct expense defined above.

GROSS PROFIT is the difference between total gross income and the total cost of goods sold. The gross profit margin is one measure of the relationship between the direct cost and selling price of a firm's product.

SELLING AND ADMINISTRATION EXPENSES include the cost of marketing products, such as advertising, travel and entertainment expenses as well as such administrative expenses as officer and wages, salaries and benefits, office supplies, and other general and administrative costs. Selling and administration expenses are synonomous with the indirect costs of production incurred by establishments. All items included in this category are denoted as (CSA).

Administration and General (CSA) include expenditures for one or more of office rental, telephone charges, the aggregate item oifice expense, and dues/memberships purchased during the reporting period.

Marketing Expenses (CSA) include all expenses for one or more of advertising, travel and entertainment, and commissions for travel agents.

Indirect Labour Expenses (CSA) include all management and administrative staff wages, salaries and benefits.

Insurance Expenses (CSA) include all expenditures for insurance of plant and equipment.

Leases/Fees/TaxesExpenses (CSA) include all expenditures for accounting and legal services, business taxes, motor leases, land leases and licences.

Miscellaneous Indirect Expenses (CSA) include all indirect expenditures which are not included in the 5 categories of selling and administrative expense listed above.

SHARE FOR CAPITAL is the difference between gross profit and the total selling and administration expenses. This it the amount available to cover the interest, depreciation and profit to shareholders.

PRETAX NET INCOME is the share for capital less the depreciation allowances, long-term interest costs and working capital interest costs of the establishment.

Depreciation Allowances are non-cash outlays which are taken each year as a method of distributing the costs of tangible capital assets over the estimated useful life of the assets in a systematic and rational manner. Standard rates for depreciation allowances are identified in the income tax regulations.

Long-term Interest Costs are the expenditures incurred to finance the long-term debt commitments of the establishment.

Working Capital Interest Costs are the expenditures made to finance short-term loans to meet the working capital requirements of the establishments.

AFTER TAX NET INCOME is the pretax net income less the corporate taxes paid by the entity.

Appendix 5

Concepts from National Income Accounting and Input-Output Analysis

NATIONAL INCOME ACCOUNTING AND INPUT-OUTPUT ANALYSIS

This appendix describes the concepts of national income accounting and input-output analysis since these procedures are the accepted methods for measuring the economic impacts of an industrial sector. First, the relationship of the aggregate income statement of the industry to the national income and product statistics will be described through the use of a simple but hypothetical income statement for the industry. Several concepts from national income accounting will be defined and illustrated. Secondly, the relationship between the national income accounts and the input-output analysis of economic activity will be described and some of the concepts integral to input-output analysis will be presented.

National Income Accounting is a systematic means of demonstrating the national income of the economy. National income has been described in three different but equivalent ways:

a) the sum of amounts spent on final output by the various groups of sectors of the economy; (ex. sales of automobiles to consumers);
b) the sum of all incomes earned from productive activity; (ex. wages, salaries and profits for the automobile manufacturer, tire manufacturer, and rubber manufacturer;
c) the sum of the outputs of all producing units in the economy; (ex. the gross sales of the automobiles, tire and rubber manufacturers less their purchase from other firms).

The third approach is useful in developing the national income concepts since it uses the business accounts of the industry. The income statement of the industry can be presented in a way which brings out the firm's contibution to national product and income.

Table A5.1 Hypothetical income statement for lodge industry (values in thousands of $).

Gross Sales	$5 000	
Cost of Goods Sold		
Direct Labour Payments		$1 200
Boat and Motor Expenses		400
Camp Supplies		400
Transportation Costs		1,400
		$3 400
Gross Profit	$1 600	
Selling and Administration		
Indirect Labour Payments		400
Advertising		400
Office Expenses		100
		$ 900
Depreciation Expense	$ 500	
Net Operating Income	$ 200	

Table A5.2 Hypothetical statement of sources and allocations for the lodge industry (values in thousands of $).

Allocations	
Depreciation	$ 500
Wages and Salaries	
Indirect Labour	1 400
Direct Labour	1 200
	1 600
Net Profit before Tax	200
Total Allocations of Value Added	$2 300
Sources	
Gross Sales	$5 000
Less:	
Purchases from other Firms	
Boat and Motor Expenses	400
Camp Supplies	400
Transportation Costs	1 400
Advertising	400
Office Expenses	100
	$2 700
Value Added	$2 300

For example, consider the hypothetical income statement shown in table A5.1. The industry is seen to have realized $5 million in gross sales and purchased goods and services from other firms in the form of boat and motor expenses, camp supplies, transportation services, advertising expenses, and general office expenses. As calculated in the statement of sources and allocations, these purchases from other firms total $2.7 million. Thus, in relation to the $5.0 million in gross receipts, the industry has added $2.3 million ($5 million less $2.7 million) to the value of the goods and services purchased from other firms. This amount, referred to as value added, is an indication of the value of the industry's production. It is also possible to show how the value added is distributed among the economic factors of production. The allocation of value added to capital (.5 million), labour (1.6 million) and profits (.2 million) is illustrated in table A5.2, the statement of sources and allocations.

Value added is a widely used measure. It has particular significance in that it provides an unduplicated measure of the value of production by excluding intermediate inputs. This is appropriate because, for each industry, intermediate inputs represent the accumulated values originating at earlier stages of production.

Thus, the value of the camp supplies, and all such purchases from other firms, are measured at an earlier stage of production under the appropriate industry classification.

If this process of measuring the value added of each industry were repeated across all industries, it would be possible to measure the value of production for the economy as a whole. This would equal the gross national product, this being the total gross value, at market prices, of the ouput of all goods and services produced in the economy during a particular period. Once again, it is emphasized that it is an unduplicated measure, in the sense that repeated sales of the same goods have been eliminated.

The national income accounts are closely related to the input-output models of the economy. One concept integral to the input-output models is that of gross domestic product. Gross domestic product measures the value of production arising within the geographical boundaries of the economy irrespective of whether the factors of production are resident or non-resident. Gross domestic product is equal to gross national product less investment income received from non-residents plus investment income paid to non-residents. If net direct taxes are excluded, measure of gross domestic product at factor cost are provided. The factor costs comprise wages and salaries plus operating surpluses, this being the sum of profits and other investment income, inventory valuation adjustments and capital consumption allowances (depreciation) plus miscellaneous valuation adjustments (Statistics Canada 1975).

Input-output analysis has been developed to examine interrelationships in the flows of goods and services among producing industries. These models enable consideration of economic linkages between a particular industry and the rest of the economy.

For example, it is obvious that the Saskatchewan outfitters do not operate in isolation. Their production activity requires the efforts not only of those in the lodge industry, but also those concerned with the provision of intermediate inputs, the expenditures on the goods and services from other firms. In the example above, such items as transportation services, camp supplies and office expenses were classified as intermediate inputs.

In turn, the production of these intermediate inputs is only possible if yet other materials and services are available. For example, the aviation industry's demand for maintenance materials and services arises, in part, from the lodge operator's demand for transportation services. This process is further complicated by the fact that, as income expands as a consequence of the direct and indirect effects, households will increase their purchases of goods and services, thereby giving rise to still further production and income. Thus, it is evident that the lodge industry implicates a long chain of activity which links diverse human, material and technological resources of the economy.

While it is easy to think of the circular flow and inter-dependencies of economic activity, the measurement of these impacts requires very detailed information on the interrelationships between industries and the production processes involved in each industry, as well as rigorous models of the economy which can be used to quantify these interactions. There are a variety of these models, each suited to a particular application. For this study, there was interest in developing a profile of how the Saskatchewan economy trades with other producing industries and regions. This objective requires a model which allows for inter-regional production relationships. The model best suited for this purpose is Statistic Canada's inter-provincial input-output model.

Input-output models enable the measurement of three types of economic impact. The direct economic impact is the consequence of lodge operators' expenditures on primary and intermediate inputs. The direct economic impact consists of two elements, the value added of the lodge operations (i.e. their total purchase of primary inputs) and the value added at an earlier stage of production for all intermediate inputs purchased by the lodges.

The availability of intermediate inputs is dependent on yet other goods and services having been produced. In the formal methods of input-output analysis, this is described as an indirect economic impact. It results from the purchases by all industries in which production is required in order to supply goods and services to the direct suppliers of lodges. For example, the aviation equipment parts manufacturer increases his output in response to the aviation industry's demand for services which has, in part, arisen from the demands of the lodge industry. The expansion of the parts manufacturer's output creates income which is described as an indirect economic impact.

The third impact of lodge operations is described as an induced economic impact. It arises as a consequence of the inclusion of a household income multiplier. Incomes that accrue to individuals are allocated to consumption, savings and taxes. Increased consumption results in an increase in purchases of other goods and services, thereby giving rise to still further production and income.

The indicators used to measure the size of the economic impacts include the gross domestic product at factor cost and the levels of employment (man/years). There are also a series of relative measures which provide an indication of the nature and extent of the linkages betwen an industry and the rest of the economy. These measures are described as employment multipliers and income multipliers. For example, the indirect income multiplier is measured by direct plus indirect income over direct income. Similarly, the ratio direct plus indirect plus induced employment over direct employment would be described as the total employment multiplier.